Famous Artists Painting Course
Famous Artists Schools, Inc., Westport, Connecticut

Section **15**

Drawing clothes, draperies, and costumes

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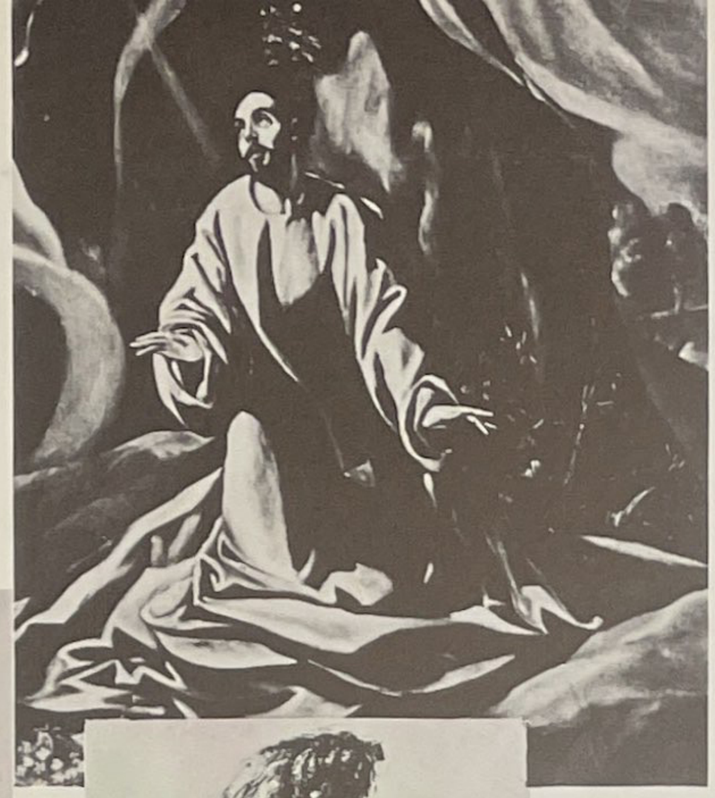
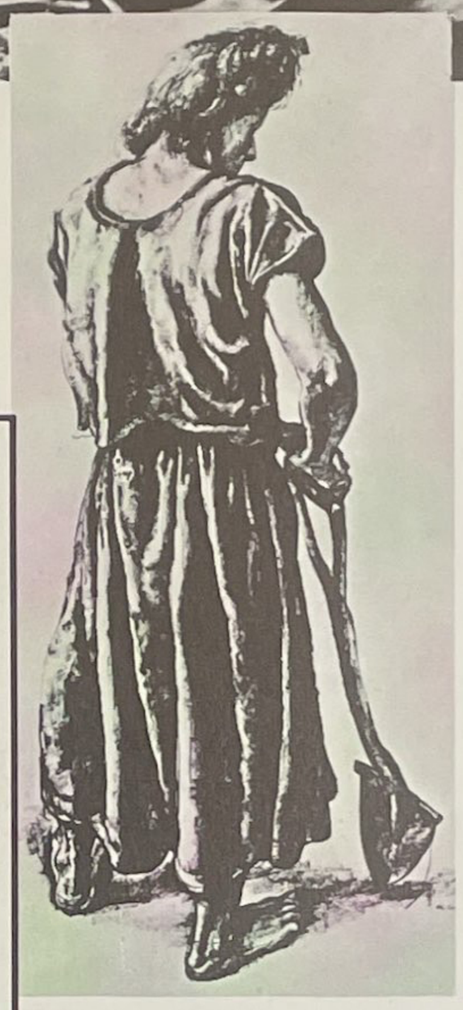




Drapery

The individuality and character of drapery are almost as important in the drawing of a figure as the figure itself. Cloth, by itself, is without any particular form or character, but in use it becomes "alive," and it is this live action of cloth, which we call drapery, that chiefly concerns us in this section.

Many distinct kinds of folds are present in drapery, each of which must be analyzed before its character and individuality can be expressed. There are folds that clasp, radiate, curve, fall and dip. There are others that drop, lock and zigzag. But the structure of all these various folds is governed by several basic laws. If you understand and memorize them, you will have a sound working basis for draping a figure or still life.

Dropped to the floor, the cloth falls into a mass of inert folds.

Laws of gravity

Almost all folds are first governed by the laws of gravity. This can be proved in a very simple way. Hold a square piece of cloth in front of you and release it. It drops to the floor because of gravity and lies there inertly. If you should drop it several times, this characteristic would not change – although the variety of folds may differ each time it is dropped. Now pick it up by an edge and hold it at arm's length. Pulled downward by the force of gravity, all the material falls toward the floor from the point where you grasp it. This is its point of support and you can see that folds of a definite character have developed. These folds are tubular or pipelike and they hang vertically. You can repeat this simple experiment as many times as you wish and these pipe folds will always recur.

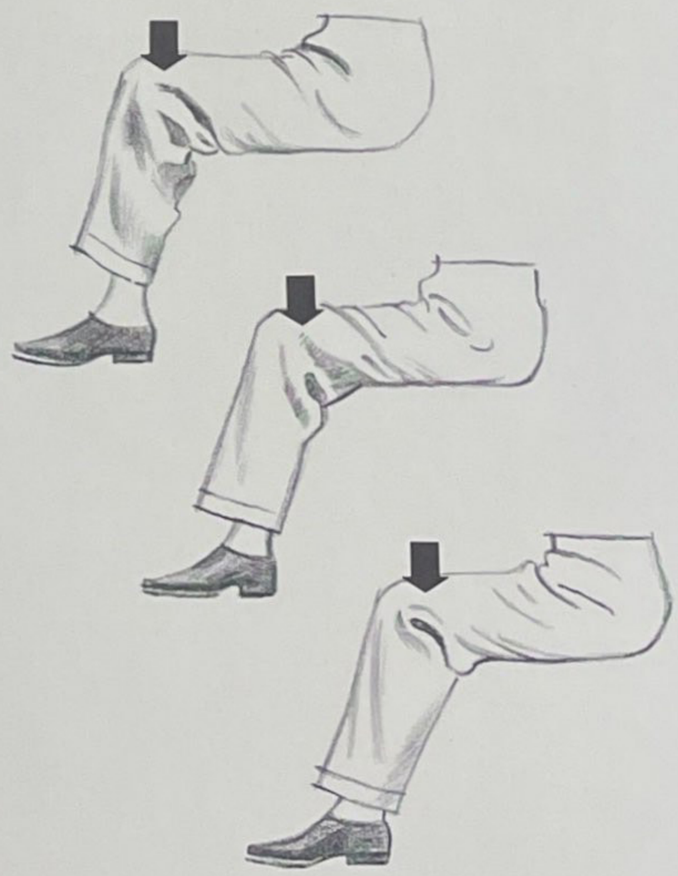
Now, take hold of the lower end of the cloth and lift it up until it is level with your other hand. Spread your hands slightly apart. Notice that folds of a different type, of a dipping or curving nature, sweep across from hand to hand. The slack in the center of the cloth is pulled down by gravity between your two hands – the two points of support. You could repeat this experiment endlessly and, while the details of the folds might vary, the character of the folds would always be the same. This is true because the laws of gravity and the principle of the point of support are at work.

Folds radiate from the points of support.

Points of tension

There is a second principle that is just as important to the understanding of folds – the principle of the point of tension. When you bend your arm, for example, the elbow becomes a point of tension. You notice that folds in the sleeve appear, radiating from the elbow. Similarly, in trousers, there is a point of tension at the knee, creating folds that extend to the crotch. On a closely fitting skirt, there are points of tension on the thighs. As you bend, twist, turn, or move your limbs, your clothing is drawn taut on many different parts of the body, producing points of tension and giving rise to a variety of folds and wrinkles.

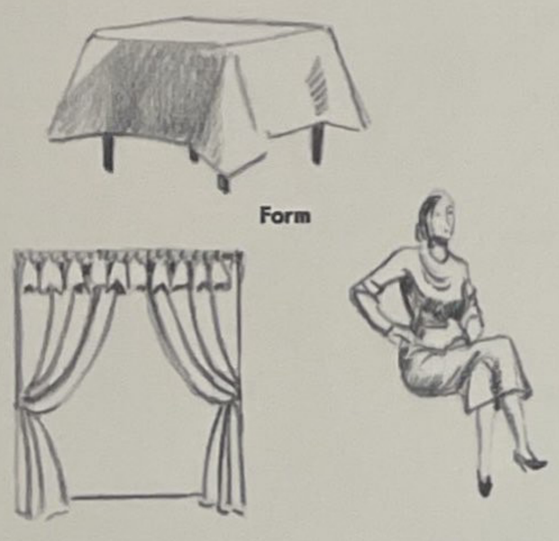
In repeating a fold, only details change.



Laws of folds

While all folds are governed by the laws of gravity and by the points of support and tension, the character of the folds is, to a great extent, controlled by the shape underneath. With the addition of this principle, we actually have three things to remember: (1) The laws of gravity, (2) points of support and tension, (3) the shape underneath.

Although folds may appear to be of a complex nature, they are not. Folds have, in fact, been classified according to a series of laws. The formulation of these laws became possible when it was learned that, under given conditions, predictable folds recur with only minor variations. For example, the marginal drawings on this page show the pipelike folds falling from a single point of support and the curving folds when the cloth has two points of support. Under similar conditions these folds will recur constantly, and from this knowledge general laws were formed. The folds may vary in detail but the conditions that form them will not permit many variations in their fundamental character.

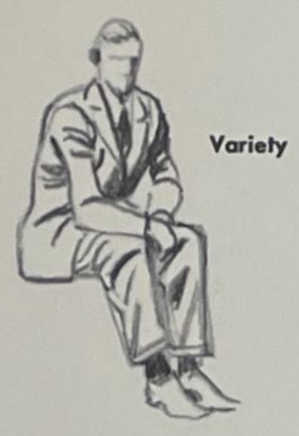


Form

There are seven basic kinds of folds, each one classified according to a basic law. The names of these folds, which indicate their shape, are: (1) Pipe, (2) Zigzag, (3) Spiral, (4) Half-lock, (5) Diaper, (6) Drop, (7) Inert. You must thoroughly understand these seven folds because you are going to be constantly confronted with them. By understanding them, when you are drawing you will not make meaningless marks indicating folds. The folds you draw will be decisive, directional and convincing.

If cloth is used as a drape over a figure, its shape is controlled by the shape of the figure beneath, and most of the seven laws occur somewhere on a draped figure. The depths of the folds are determined by the abundance of cloth in the slack areas between points of support. Remember, there is a factual reason for the behavior of each fold. The folds are not just a bunch of wrinkles. They are governed by basic laws.

Study the drapery around you and pay attention to the differences in folds. Notice how a tablecloth follows the form of the table. Folds in curtains, you will see, are determined by points of suspension, tie-backs or fullness. Folds in a sleeve are determined by the arm beneath, and at the same time they help to reveal the structure of the underlying form.

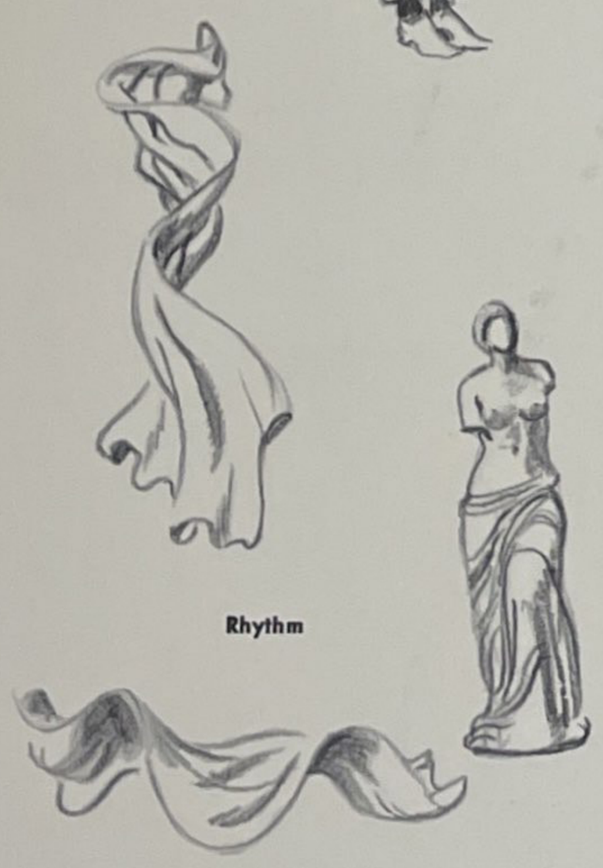


Variety

Variety

Varieties of folds are not "new" folds; they are only modifications of one or more of the seven basic folds. These modifications are caused by slackness, fullness, tension and direction – PLUS the form of the structure beneath. In the human figure, all motions, attitudes and postures contribute to variety in folds. The style and cut of a garment and the quality of material also influence this variety. Groups of folds in one area will contrast with simple areas. Spiral folds will contrast with angular ones, and zigzag folds with half-locks as the tension and support points shift.

Variety in folds is desirable, but be careful not to draw folds that are not true to life in your effort to achieve interest. Every fold you draw should have a solid basis in the laws of folds. It should owe its origin to the structure of the underlying form. The shape of the form underneath should unify the folds and give them meaning – just as they, in turn, should give it meaning by suggesting its structure.



Rhythm

Rhythm

The rhythm of drapery can be considered in many ways. There is the pure harmonious flow of a fold. There is the rhythm of a group of diaper folds that meet and die away. There are the precise rhythm of pipe folds fanning out from their point of support, the repetition of zigzag folds diminishing in size, the free-flowing folds of motion. Then there are all of these in contrast to one another – large against small, deep against shallow – ending in a harmonious, rhythmic arrangement. All artists, from the earliest times, have used the rhythmic quality of drapery in their pictures.

Drapery, we see, can do many things. Besides revealing form and structure, it can enrich a composition by giving it rhythm. It can introduce contrasting values and textures, making your pictures more varied and interesting. As we shall observe in this section, it can be used to create character, to emphasize action, or serve as a major design element. For all of these reasons, drapery is well worth your serious attention.

See – Observe – Remember

Two points to remember

You will do a much more convincing and realistic job of drawing drapery if you remember two basic points which apply to all cloth, regardless of the material.

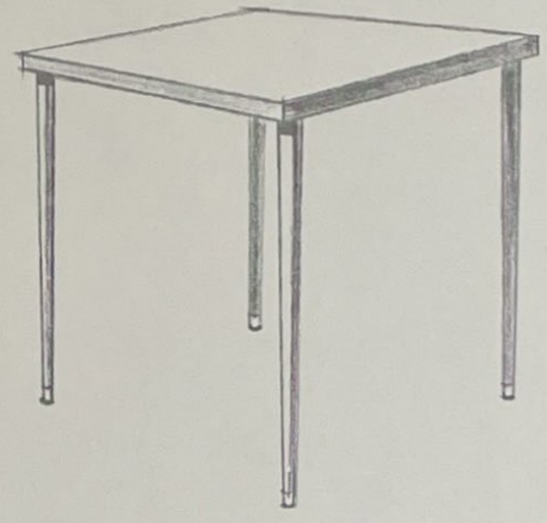
First, the drapery itself has form of its own. The folds and wrinkles are actual forms, made up of flat or curving planes. The specific form created by the material will vary with the way it is hung or draped. In each case, though, the form is there.

Always draw this form with all its planes in mind. A few carelessly drawn lines intended to suggest drapery will not do, and will destroy whatever conviction your work might otherwise have.

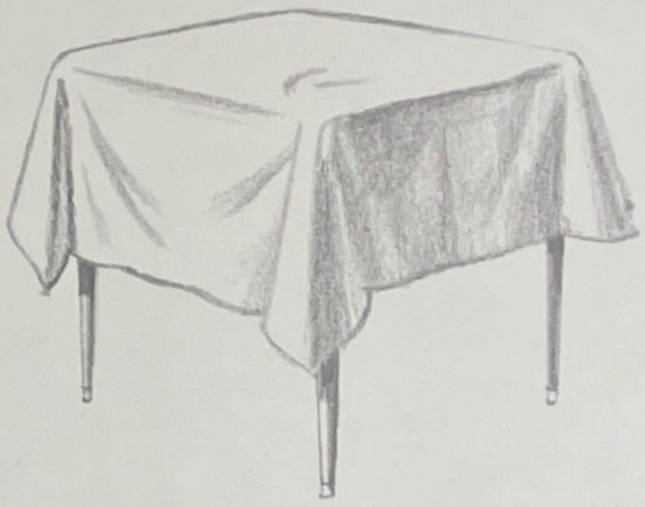
The second thing to keep in mind is the effect of the surface or form on which you hang or drape the cloth. The drapery will be affected by whatever is underneath.

Drapery can both conceal and reveal the planes of the underlying form. It reveals best where it is in close touch with the surface. It conceals where it hangs free of the surface form beneath it.

Drapery has its own form. If we drop a piece of drapery on the floor, parts of it will lie flat, other parts will bunch up to create folds with form. We can easily see definite planes.



Drapery is also affected by the object it rests upon. If we take our same piece of cloth and place it on an object such as a table, this object will determine the new form of the cloth which fits over it.

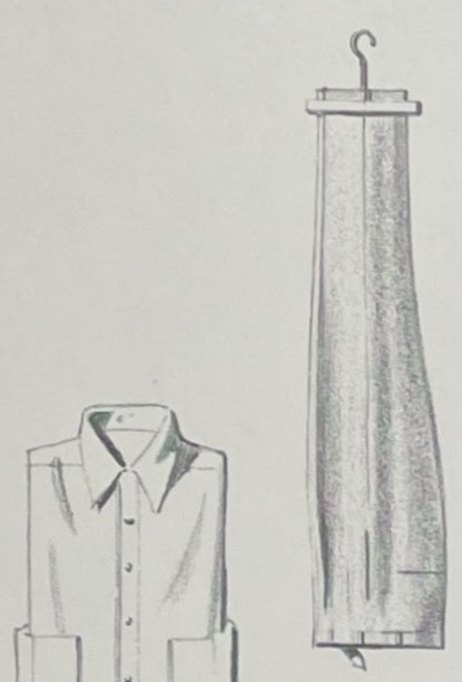


Both the form underneath and the cloth itself must be considered in drawing drapery. Here we can see the structure of the table under the cloth, and the form of the cloth itself as it drops from the corners.

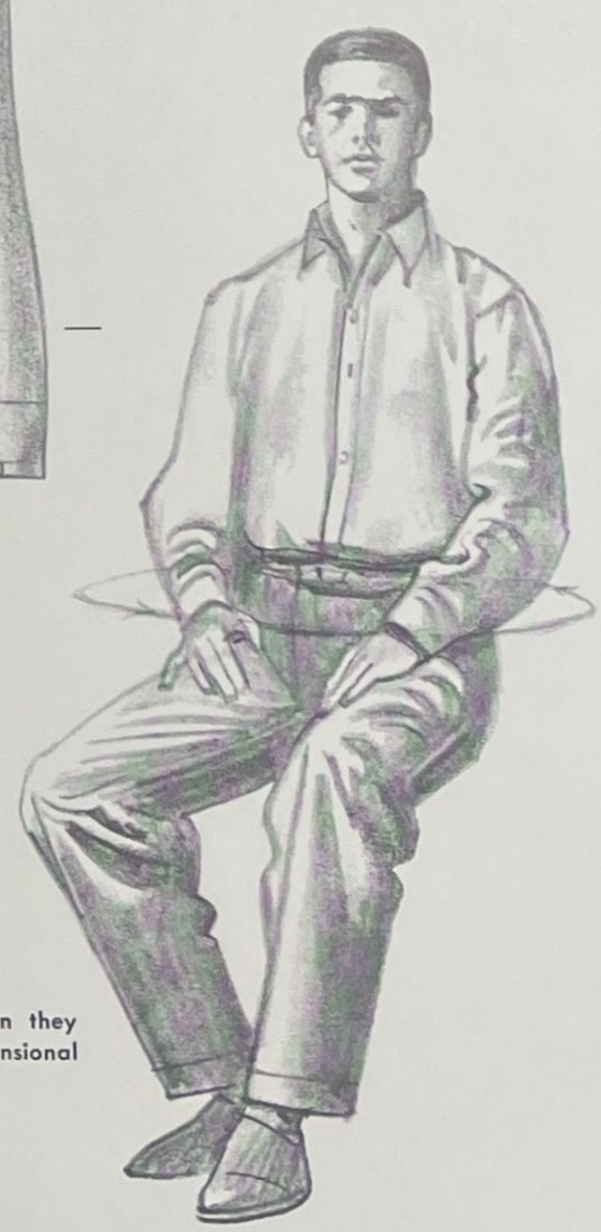
1 The dress that hangs in a flat shape like this . . .

2 . . . will, when fitted around this form of a woman . . .

3 . . . suggest the form underneath like this . . . and it will look real.



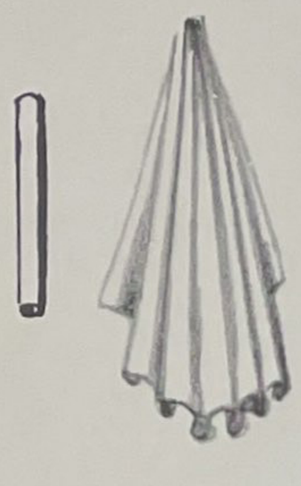
4 These two flat shapes . . . shirt and trousers . . .



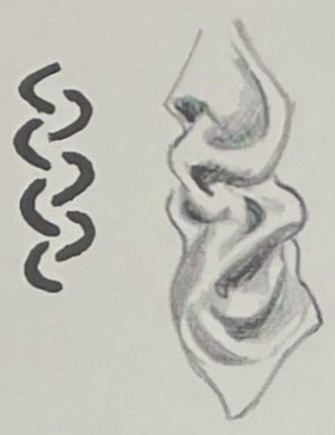
5 . . . lose their flatness when they clothe the solid, three-dimensional form of a man.

The laws of folds and their simple diagrams

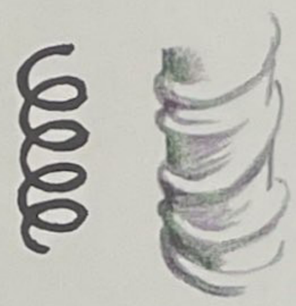
Here are the geometric diagrams of folds. We show you these, stripped of all nonessentials, so that you may better understand the basic direction and structure of each one. Actually the different types of folds do not repeat themselves exactly — only the principles are repeated. These diagrams are the principles. We hope they will help you to see through the irregularities present in all folds, regardless of the type, and allow you to see the structure.



Pipe fold
This is not an exact pipe, but a tubular-shaped fold. It must be drawn to have a cylindrical feeling.



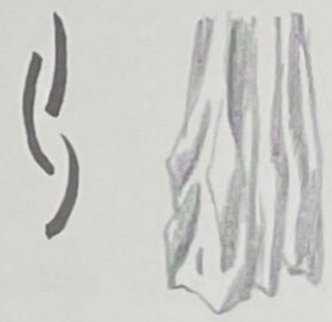
Zigzag fold
One fold is fitted into the next. The folds are usually contrasting in direction, are repetitive and interlock.



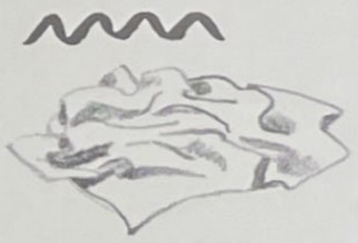
Spiral fold
This fold is usually tubular in structure. Notice that it has a feeling of continuity as it ascends or descends.

Diaper fold
This fold is triangular in shape, dropping away in a curving manner from one point to another on a horizontal line. Sometimes this has an angular, rather than a curved change of direction.

Half-lock fold
This fold is caused by a sharp change in direction. The emphasis is on the point where the direction changes and the slack areas meet.



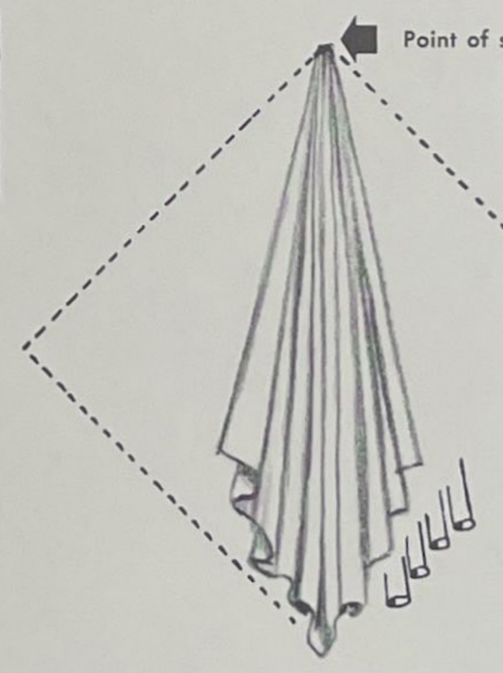
Drop fold
Irregular dropping creates numerous types of folds in the process. The emphasis is on the dropping action rather than on the detail of the individual fold.



Inert fold
These folds are found in a piece of material which is simply dropped on a flat or curved surface. Since no tension is involved, the cloth falls into a variety of bunched up, irregular forms.

Pipe fold

The pipe fold is the simplest form of drape. It usually occurs from one point of suspension or when pulled between two points. Always draw this fold with the understanding that it is the condensing of a large area of cloth into a smaller area. It is usually influenced by gravity and is under no strain, having a more or less smooth, even flow.

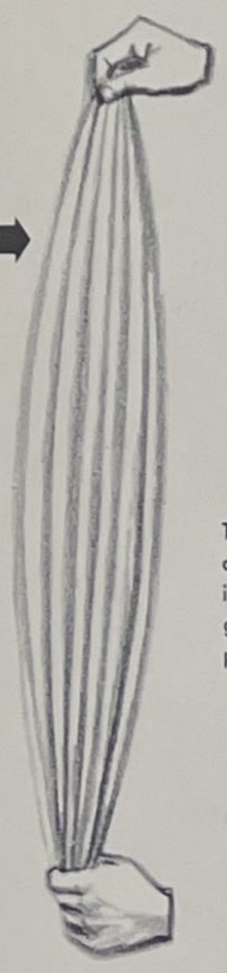


Point of support

The dotted line indicates the approximate fullness of the cloth before gravity influences it.

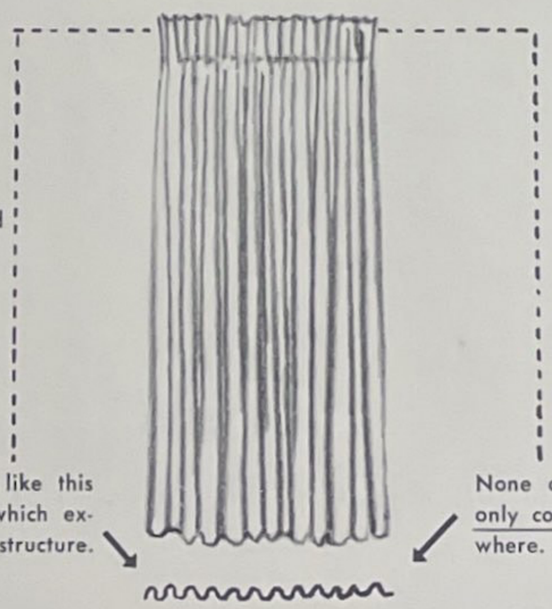
The lower part of the folds shows their round, pipe-like structure.

Here we illustrate the pipe folds by stretching them between two points. The folds fan out and get larger at the center.



A drape or curtain is gathered together at the top.

This is the area of cloth that is condensed in the drape by gathering it at the point of support.



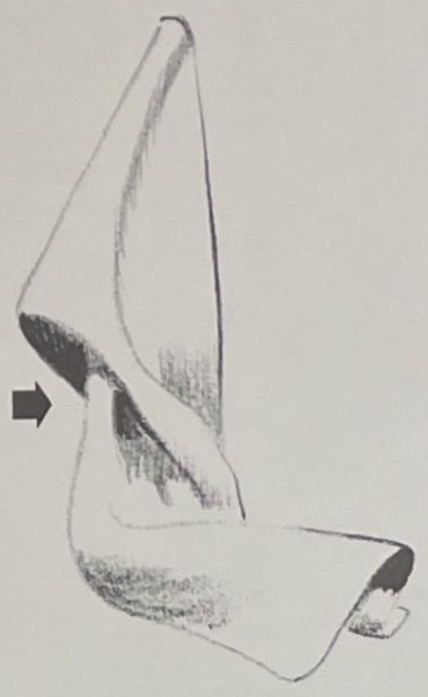
The cloth looks like this from the end, which explains the pipe structure.

None of the cloth is removed. It is only condensed. Cloth must go somewhere. It has to fold.

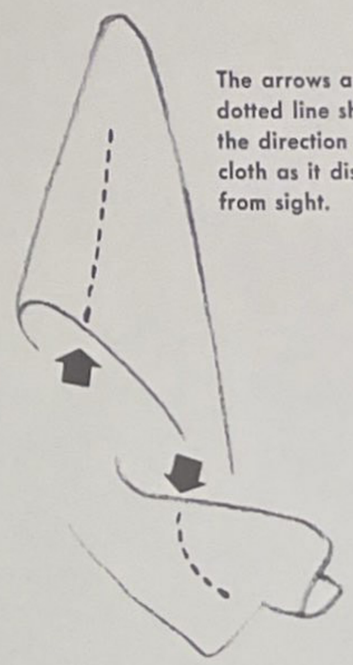
The fullness in this garment is gathered around the waist, which is the point of support. The pipe folds gradually fan out and radiate downward. Folds in a garment will vary in width when the action of the figure changes.

Zigzag fold

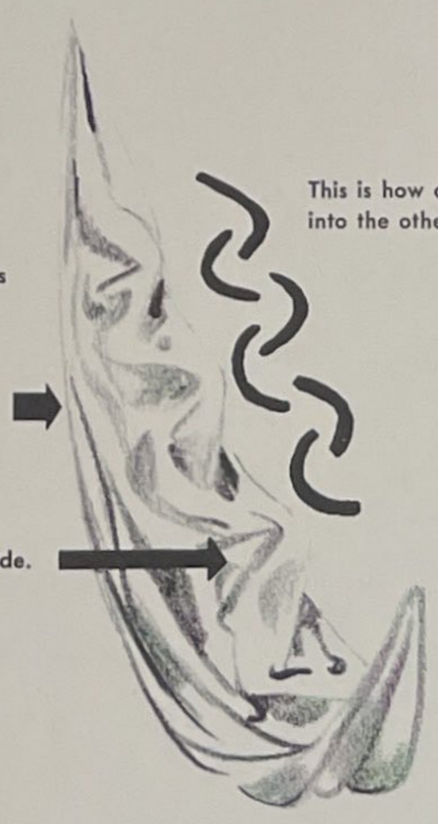
This fold usually occurs when a pipe fold is bent. The zigzag is on the slack side of the bend. This slack buckles in an uneven criss-cross way. It occurs because there is an uneven twisting of the fold that sets up a sharp, interlocking zigzag. These zigzags may vary in size.



Study the way this part of the fold wedges into the next part.



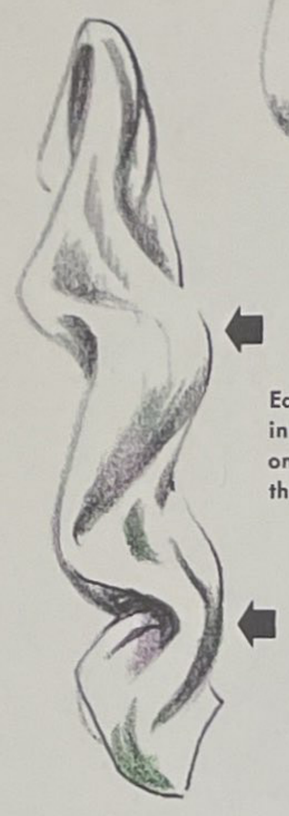
The arrows and the dotted line show you the direction of the cloth as it disappears from sight.



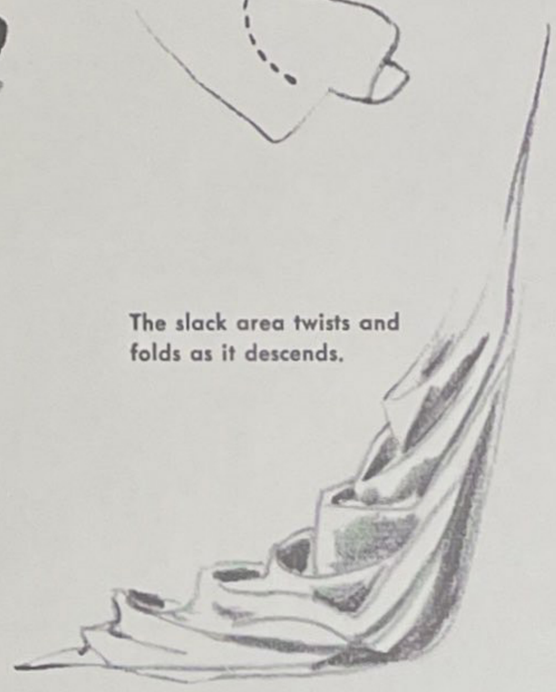
The underside is smooth and without folds.

This is how one fold fits into the other.

The slack side.



Each slack section folds in contrast to the next one. This is caused by the twisting of the cloth.

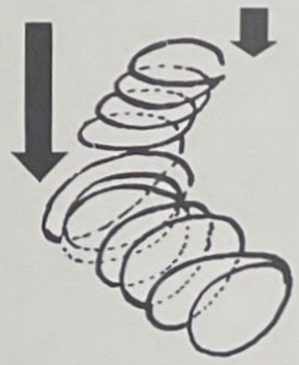


The slack area twists and folds as it descends.

Spiral fold

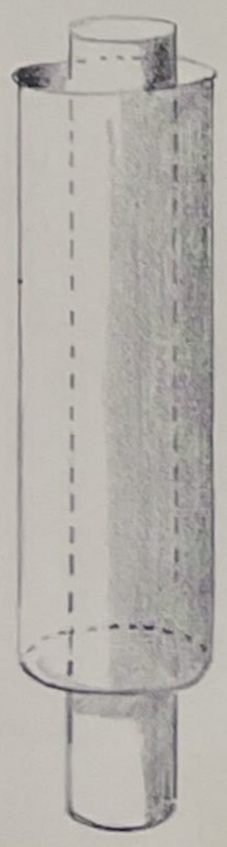
This fold is usually wrapped around a tubular form. It will change direction as the points of support and tension vary from place to place. Sleeves and trouser legs present good examples.

The direction of the spiral is toward the slight tension. If the tension increases, the spiral will tighten. Spiral folds must appear to revolve around a form. Study the diagram and see how the dotted lines follow the spiral around the unseen side.



Notice how the spiral fold follows the form and changes its angle where the form changes its direction. When drawing, follow this "through" in the way shown in the diagram at right.

By twisting, cloth can create spiral forms in itself and have no solid form underneath it.



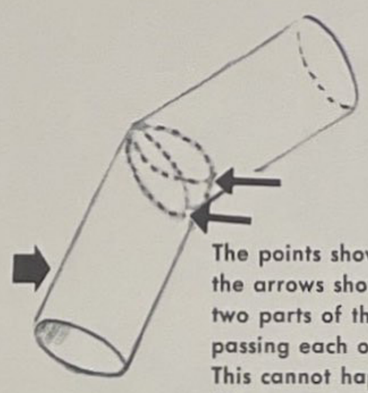
A tubular piece of cloth is placed around a cylinder with about the same amount of slack found between a sleeve and an arm.

The amount of cloth is not reduced but condensed into a smaller area. It cannot leave the cylinder and consequently it begins to spiral as it is condensed.

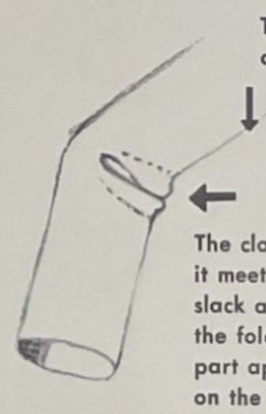
Slack cloth in spiral form encircling a leg.

Half-lock fold

The half-lock fold occurs when tubular or flat pieces of cloth change direction. The fold always occurs on the slack side. To draw the half-lock, first sketch in the general form of the drape. Next mark the angle of the fold. This is where the half-lock occurs. Then draw the slack cloth bunching up on both sides of the fold.

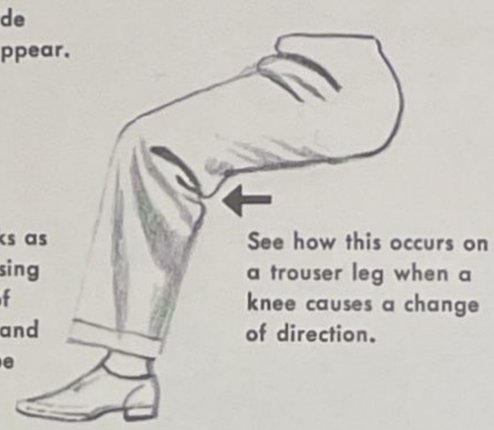


The points shown by the arrows show the two parts of the cloth passing each other. This cannot happen. They must turn back as they are parts of a single continuous flow of material.



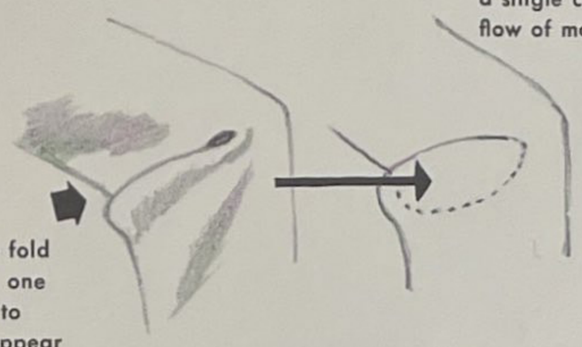
The slack side cannot disappear.

The cloth half-locks as it meets the opposing slack area. Part of the fold is inside and part appears to be on the outside.

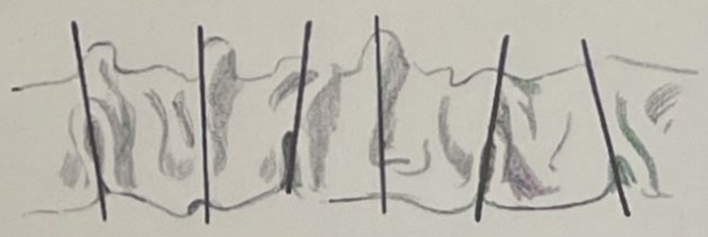


See how this occurs on a trouser leg when a knee causes a change of direction.

Three half-lock folds

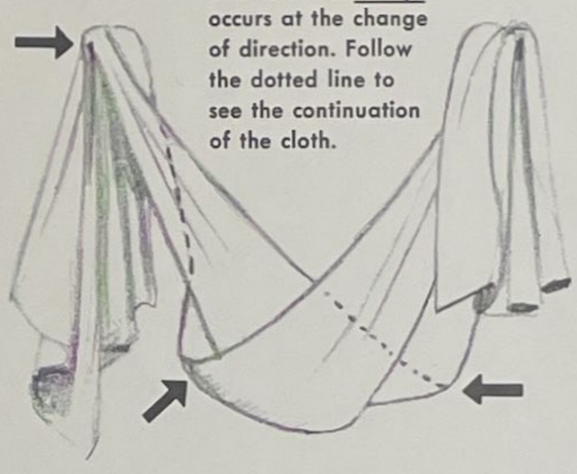


Sometimes the fold actually locks, one area seeming to slide and disappear into the other.



When a piece of cloth is bunched up like this, the material forms more or less uniform half-lock folds.

Double half-lock



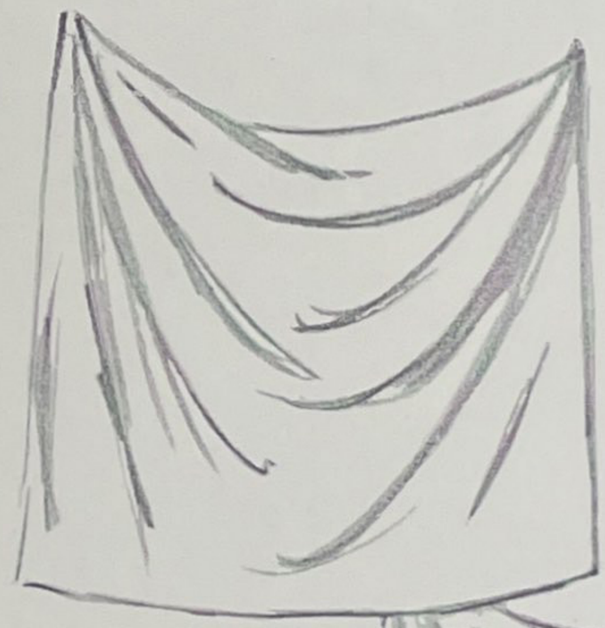
The half-lock always occurs at the change of direction. Follow the dotted line to see the continuation of the cloth.

There are two changes of direction — one at the leg-torso connection, the other at the knee.

The lower area of the skirt appears to "lock" into the upper area.

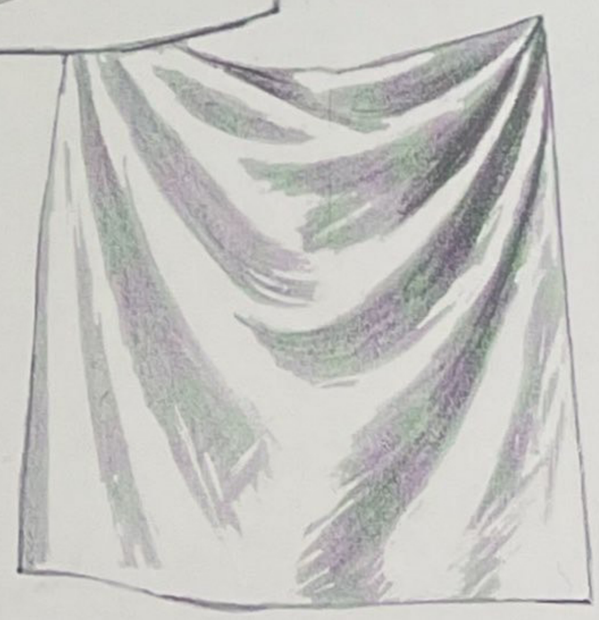
Diaper fold

From two points of support, the diaper fold occurs at the break or turn of the cloth. This is usually on a wide, flat surface, rather than on a tubular piece of cloth. Always draw this, accenting the sweep of the curve. The top of the curve is usually sharp, and the lower side of the fold is softly shaded. The angle and roll of the fold will change in character with different qualities and weights of material. As the points of support vary, the angle of the dip changes.



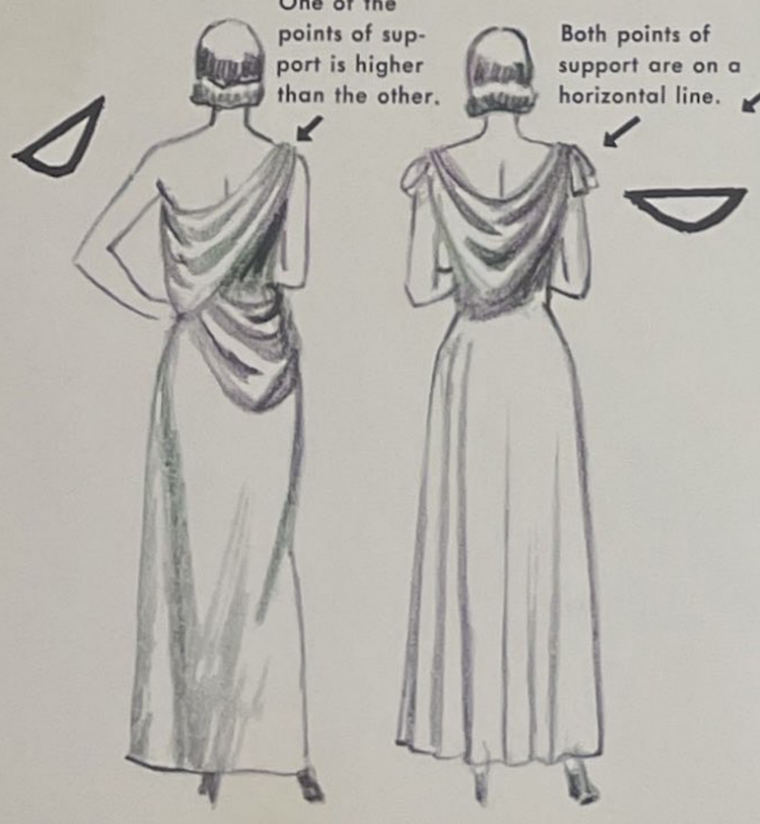
When drawing a diaper fold, start by roughly indicating the direction of the fold as it radiates from the points of support. Then proceed to model it with shading without losing its direction.

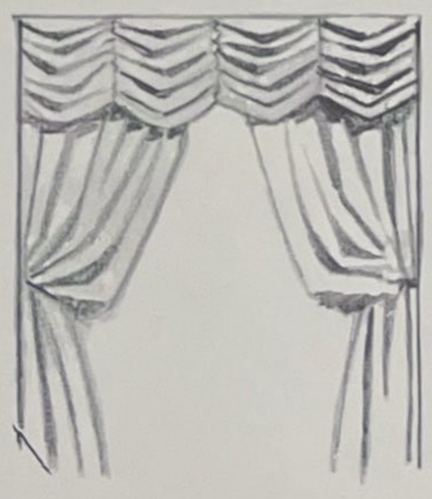
Diaper folds drape halfway around a cylinder.



One of the points of support is higher than the other.

Both points of support are on a horizontal line.

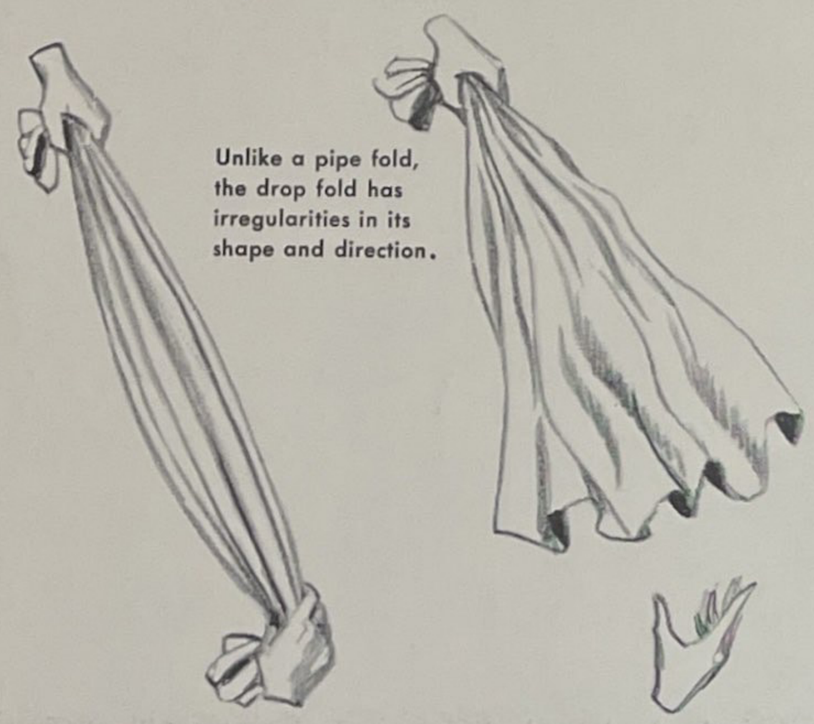




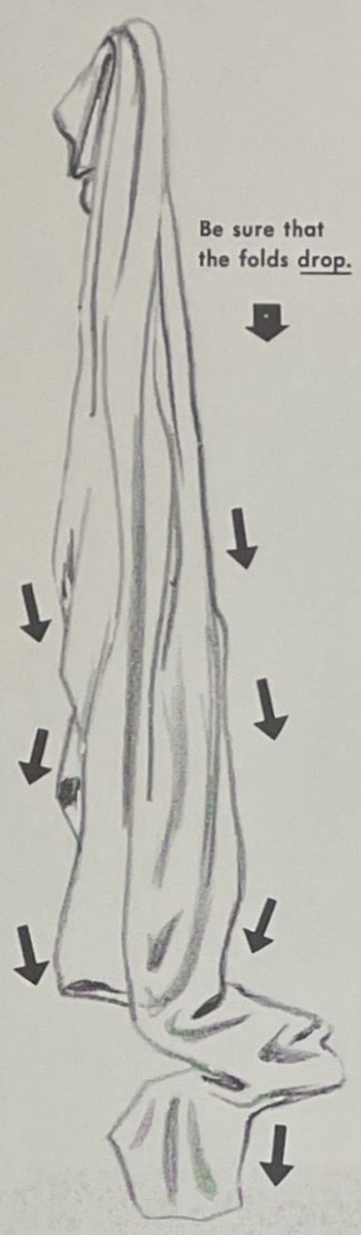
A series of diaper folds in curtains.

Drop fold

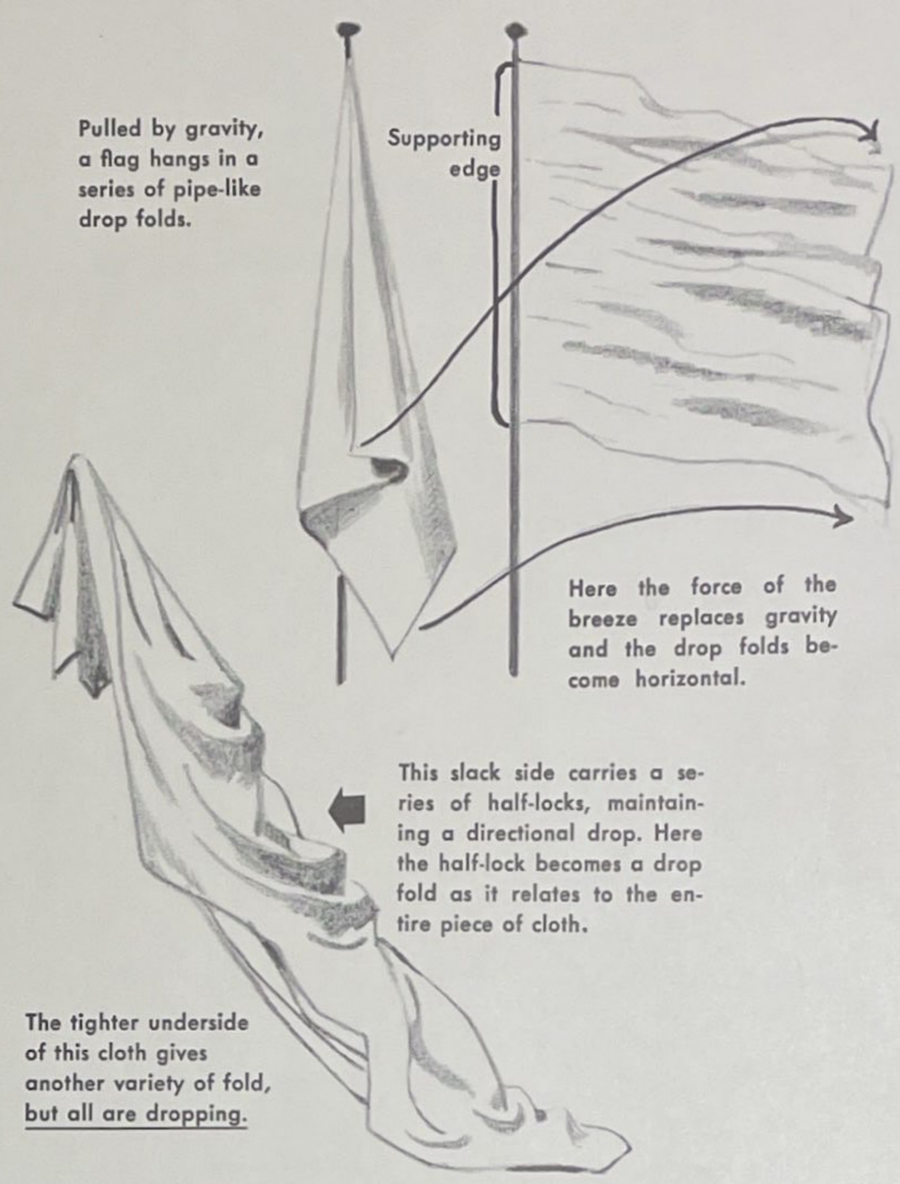
From a point of suspension, the drop fold twists, turns and staggers. Sometimes it hangs straight, like a pipe fold. At other times, a curved edge will give it a spiral effect. The important characteristic is that it is dropping – regardless of small folds that occur during the process. Drop folds will contain small zigzags, spirals, and half-locks – but they all contribute to the entire drop of the cloth.



Unlike a pipe fold, the drop fold has irregularities in its shape and direction.



Be sure that the folds drop.



Pulled by gravity, a flag hangs in a series of pipe-like drop folds.

Supporting edge

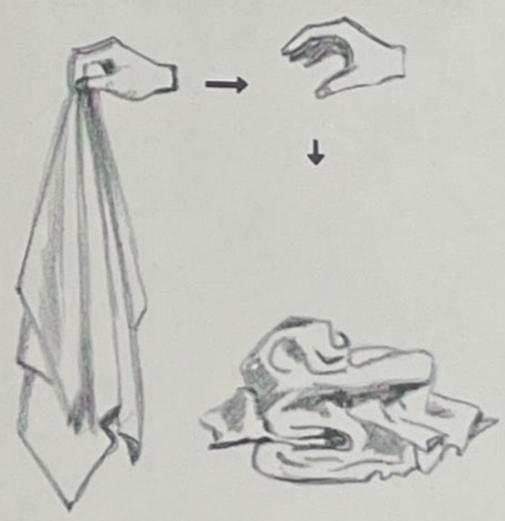
Here the force of the breeze replaces gravity and the drop folds become horizontal.

This slack side carries a series of half-locks, maintaining a directional drop. Here the half-lock becomes a drop fold as it relates to the entire piece of cloth.

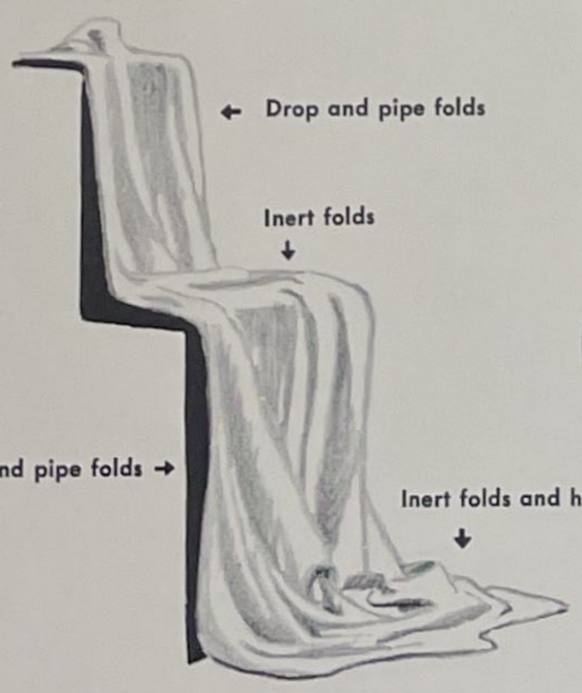
The tighter underside of this cloth gives another variety of fold, but all are dropping.

Inert fold

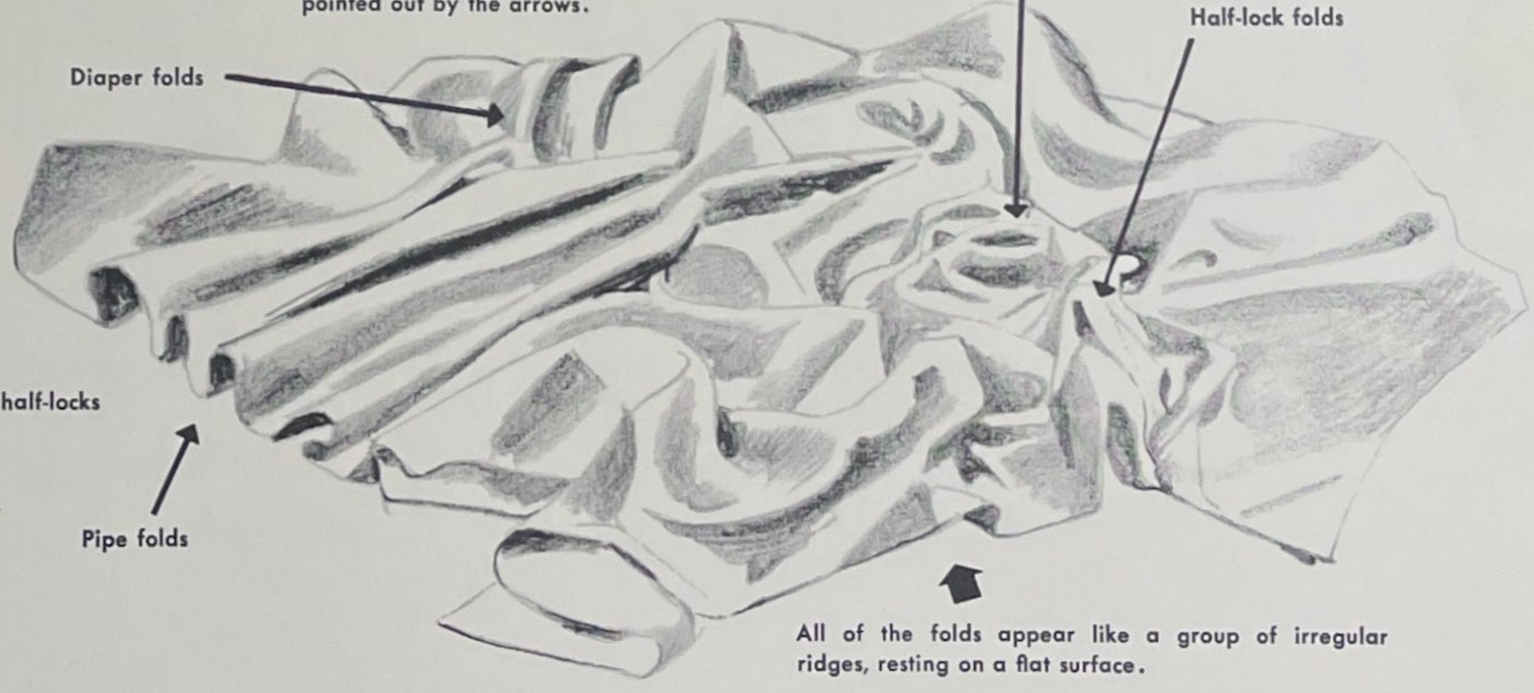
The best explanation of an inert fold is to call it a "dead" fold. We say this because it is not active, or in use, but lies inertly. It can have all manner of individual folds on its top surface. Its basic characteristic is that it is lying limp, on an inactive surface. Its over-all feeling and direction will be characteristic of the surface upon which it is resting.



Inert folds are governed by the shape of the surface upon which they are resting.



Inert folds usually contain a variety of folds and need careful study. This cloth contains many different folds, as pointed out by the arrows.



All of the folds appear like a group of irregular ridges, resting on a flat surface.

VERROCCHIO — Portrait of Lorenzo de' Medici

Pipe fold

The front of this man's tunic is an excellent example of drapery in which pipe folds are the dominant forms.

FIFTEENTH CENTURY — Virgin and Child

Spiral fold

The spiral folds are easy to see on the right side of the Virgin, where her garment spirals down around the torso.

SIXTEENTH CENTURY — Virgin and Child

Zigzag fold

The drapery falls in animated zigzag folds over the front of this figure.

Sculpture helps to reveal the structure of folds

These examples of sculpture are shown here to remind you that each of the seven types of folds has real form. In every case the drapery was created by modeling actual planes that cut into or protrude from the mass of the drape and figure.

Such examples as these are particularly useful in gaining an understanding of both the structure and action of the folds. Because the sculptor has "frozen" the form and action of the drapery, it can be studied much more easily than in real life, where movement and form are constantly changing.

As you study these examples, note the definite differences between the seven types of folds. You'll also discover that each fold can assume variations. The same kinds of folds may be large or small in scale, loose or tight. However, in each case they are simply modifications of the seven kinds of basic folds.

Half-lock fold

The half-lock folds form over the lap and legs, where the material hangs between the outspread knees of the figure.

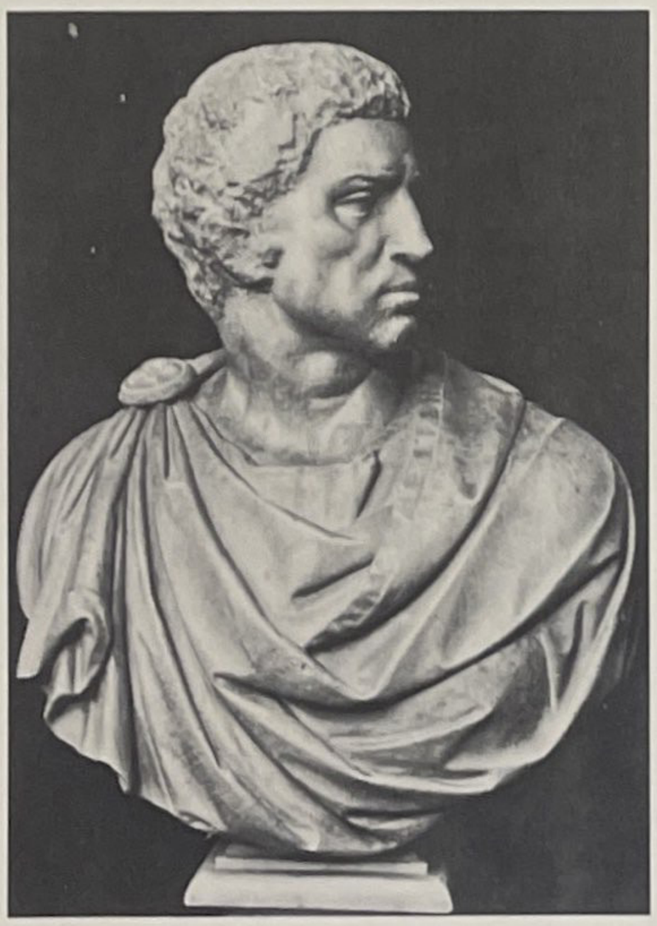
JACOPO DELLA QUERCIA — Madonna and Child

MICHELANGELO — Rachel

Drop fold

This is a fine example of drop folds. They start from the figure's shoulders and drop all the way to the floor. Note that they curve and change direction as they descend.

SIXTEENTH CENTURY — Brutus



MICHELANGELO — Pietà (Detail)

Diaper fold

The tunic on this bust falls into neat diaper folds that sag downward from each shoulder.

Inert fold

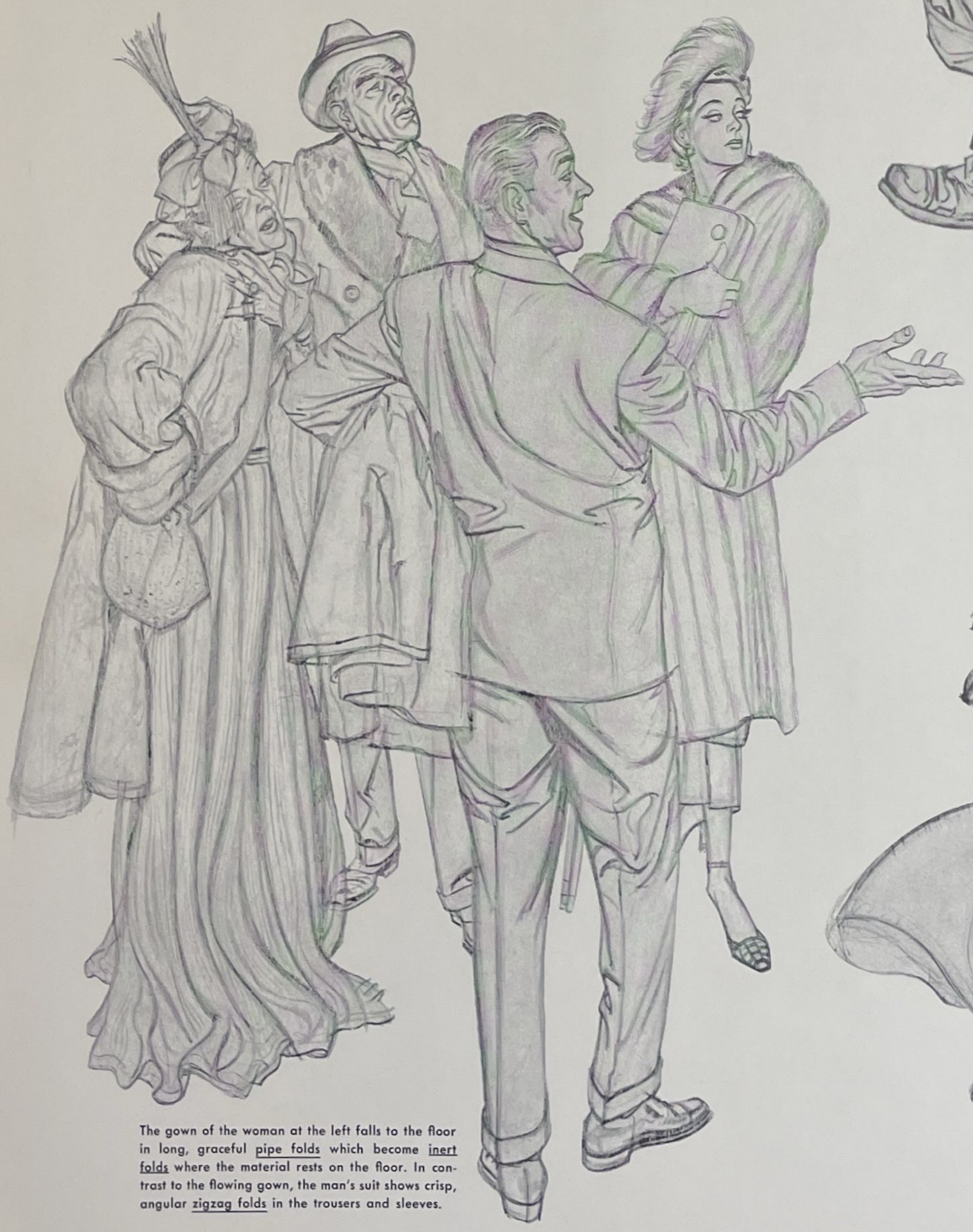
Here the fullness of the material of the robe creates inert folds over the upper torso of the Virgin.

Drawing the seven types of folds in action — ALBERT DORNE

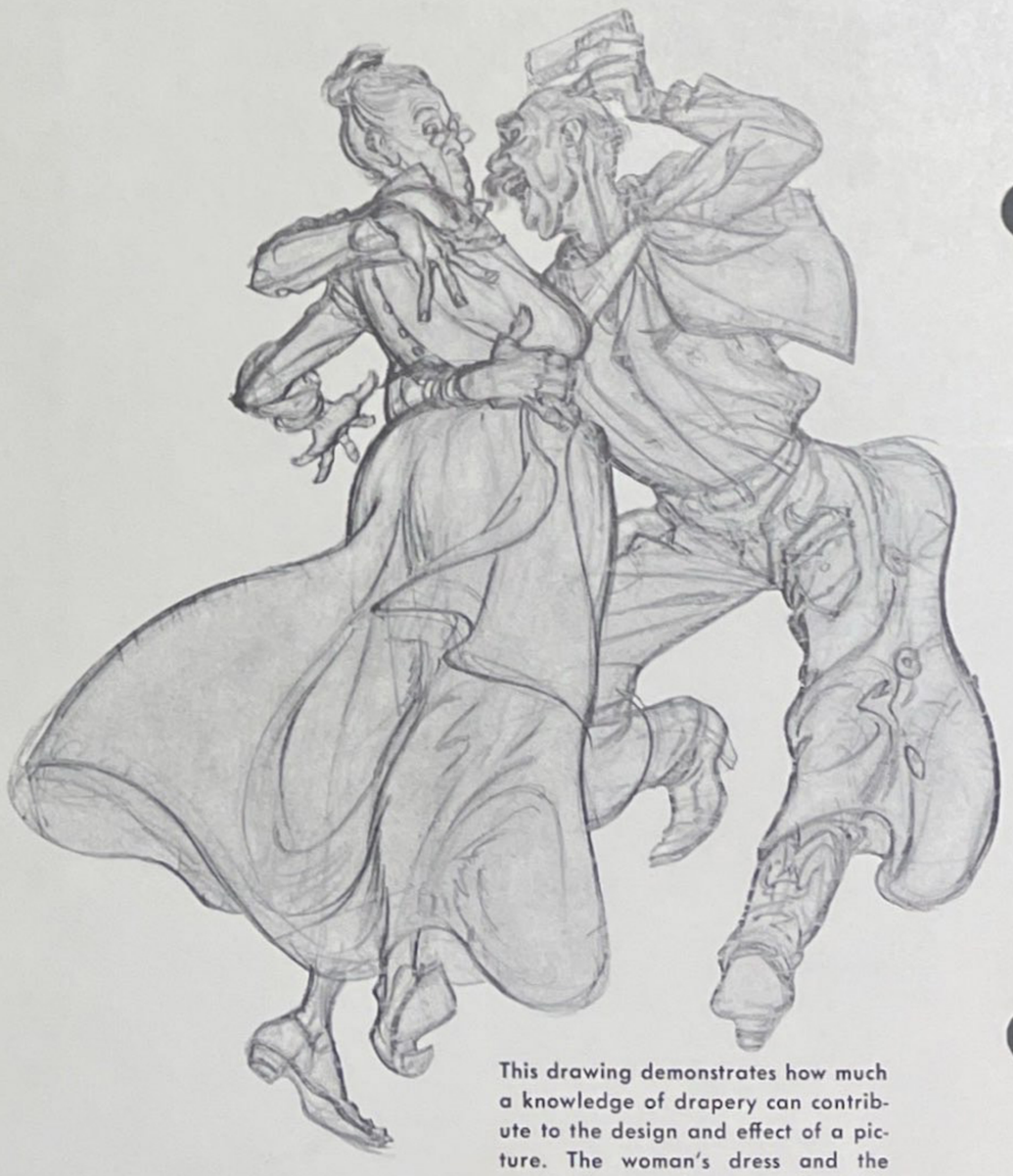
The preliminary or working drawings by Albert Dorne on these two pages show that a fine draftsman studies and constructs the drapery in his pictures with the same understanding of form and the laws of folds as the sculptors whose work you saw on the preceding pages.

In these drawings you will find no haphazard lines that leave to chance the suggestion of folds or their action. Everything is based on observation and purpose — the exaggerated drapes and folds as well as the realistic ones establish action and character. From now on, look at garments carefully and observe how they are put together. To make convincing drawings of drapery you must also understand the structure of the figure underneath and how the garment is affected — not only by the form of this figure but also by its action.

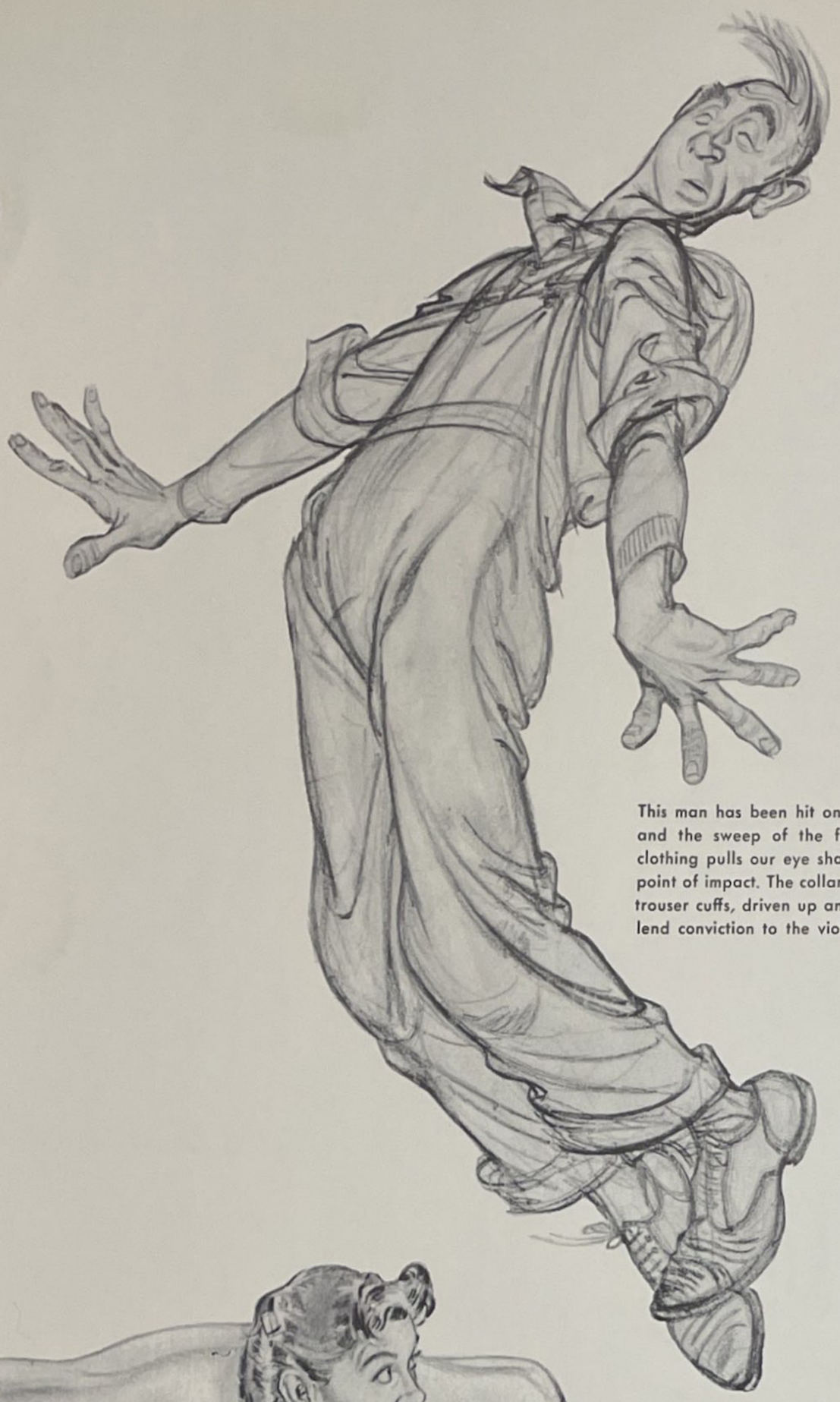
This is a fine example of the stresses and tensions which show up in clothing when the figure assumes certain positions. Note the way the overalls are bunched into deep half-lock folds in back of the knee and at the hip joint. On the buttocks, the top of the thigh and the knee, the material stretches tightly over the underlying forms.



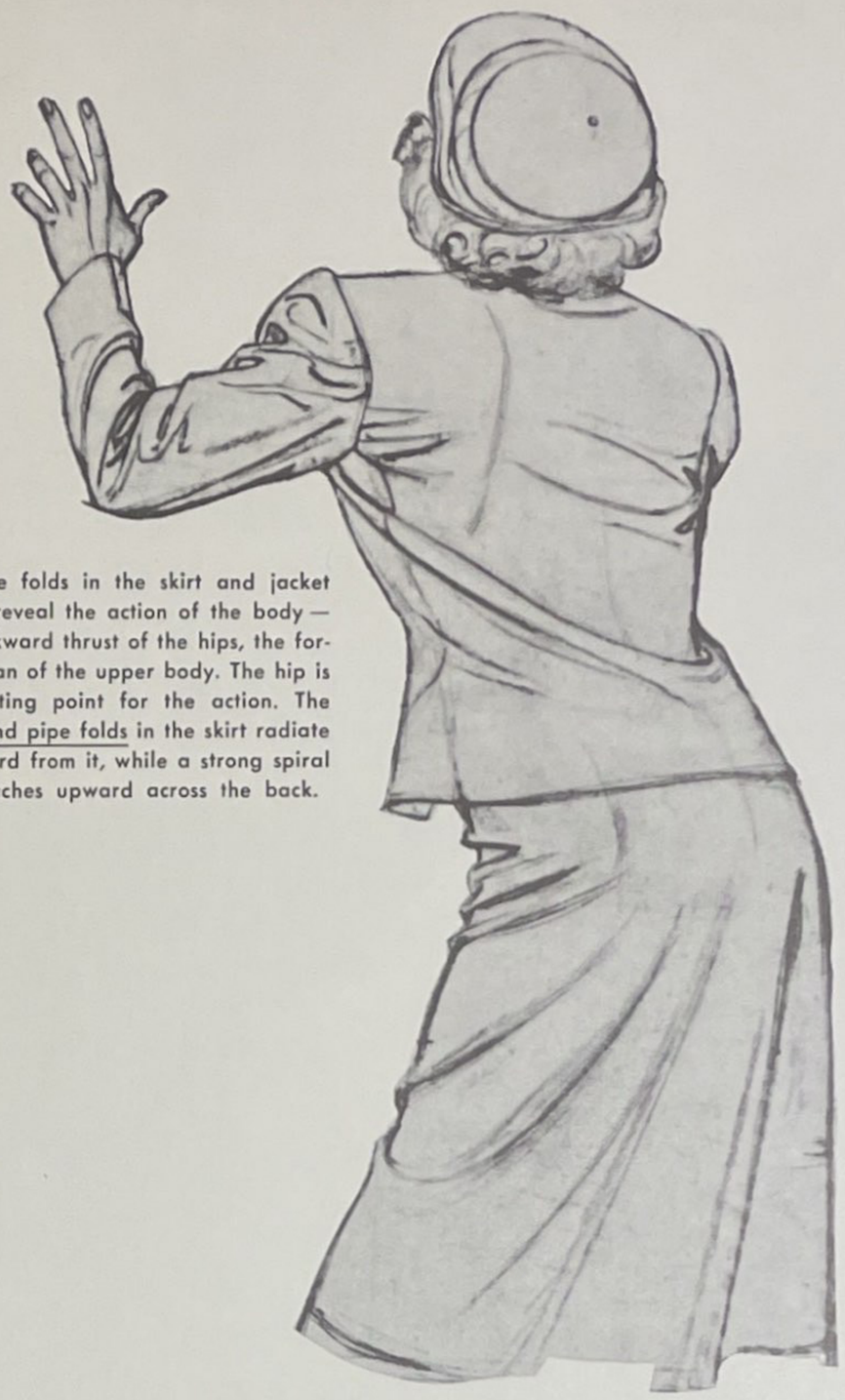
The gown of the woman at the left falls to the floor in long, graceful pipe folds which become inert folds where the material rests on the floor. In contrast to the flowing gown, the man's suit shows crisp, angular zigzag folds in the trousers and sleeves.



This drawing demonstrates how much a knowledge of drapery can contribute to the design and effect of a picture. The woman's dress and the man's chaps and vest emphatically support and help animate the vigorous movement of the dancers.



This man has been hit on the jaw — and the sweep of the folds in his clothing pulls our eye sharply to the point of impact. The collar, shirt, and trouser cuffs, driven up and back, all lend conviction to the violent action.



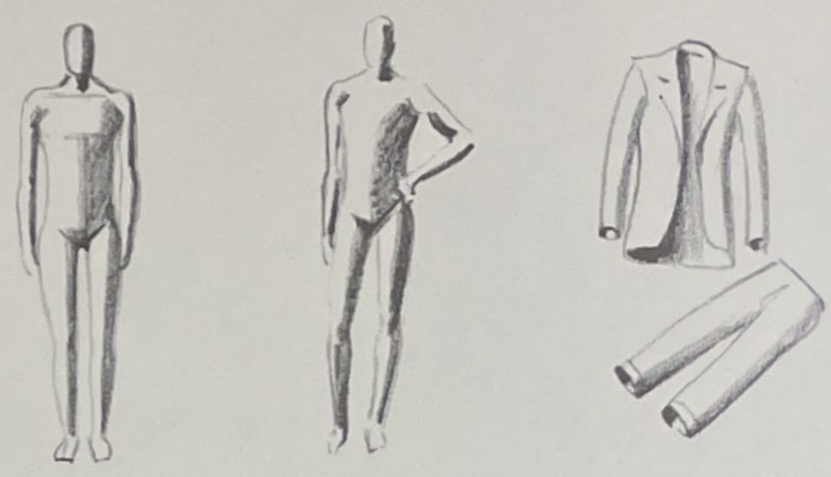
Here the folds in the skirt and jacket clearly reveal the action of the body — the backward thrust of the hips, the forward lean of the upper body. The hip is the starting point for the action. The spiral and pipe folds in the skirt radiate downward from it, while a strong spiral fold reaches upward across the back.

This drawing shows how a knowledge of drapery and choice of the right kind of folds can strengthen a mood. The obvious drop folds in the woman's skirt help her droop. Along the bottom of the chair the slipcover forms obvious pipe folds.

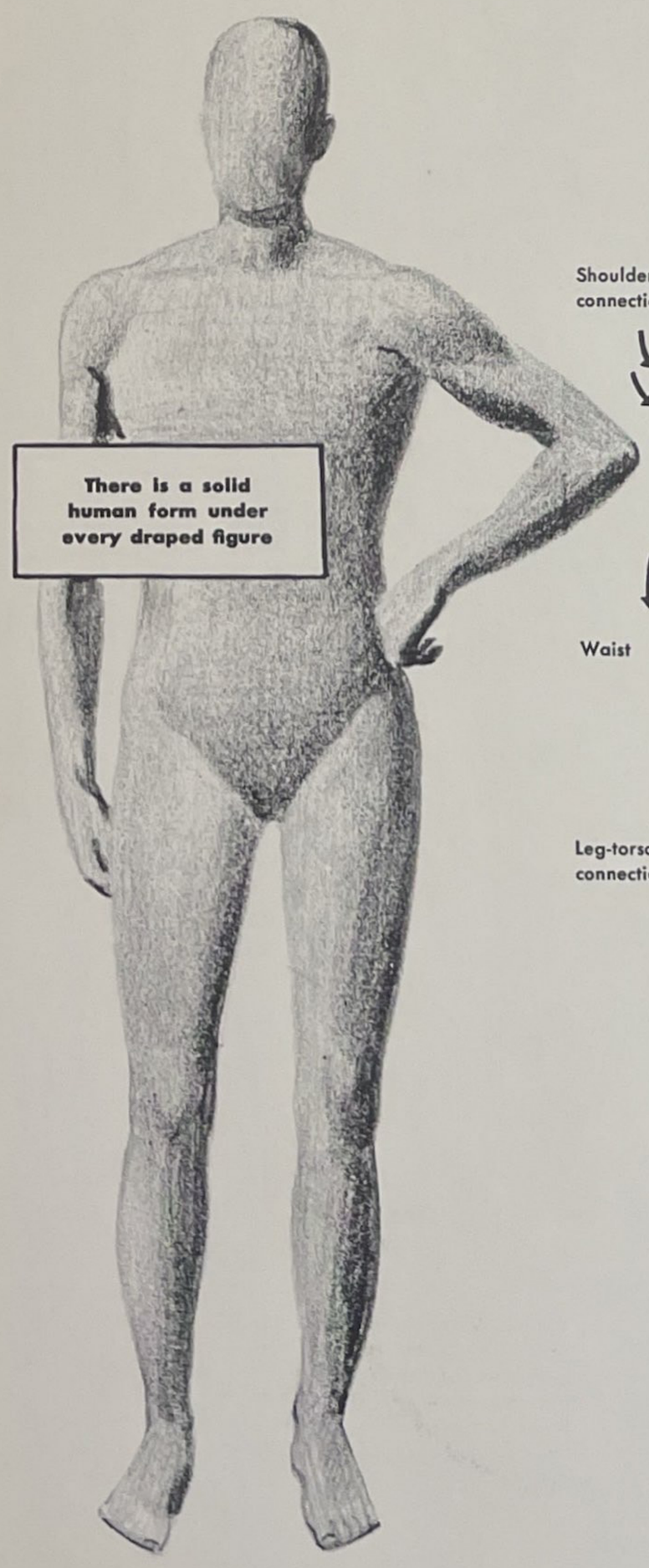
The simple actions of these Victorian figures are underlined by the folds in their clothing. Spiral folds predominate. Note how these folds radiate from the crotch and spiral around the leg at the knees. The sleeves show the same characteristic spirals, plus half-lock folds at the elbows.

Draping the male figure

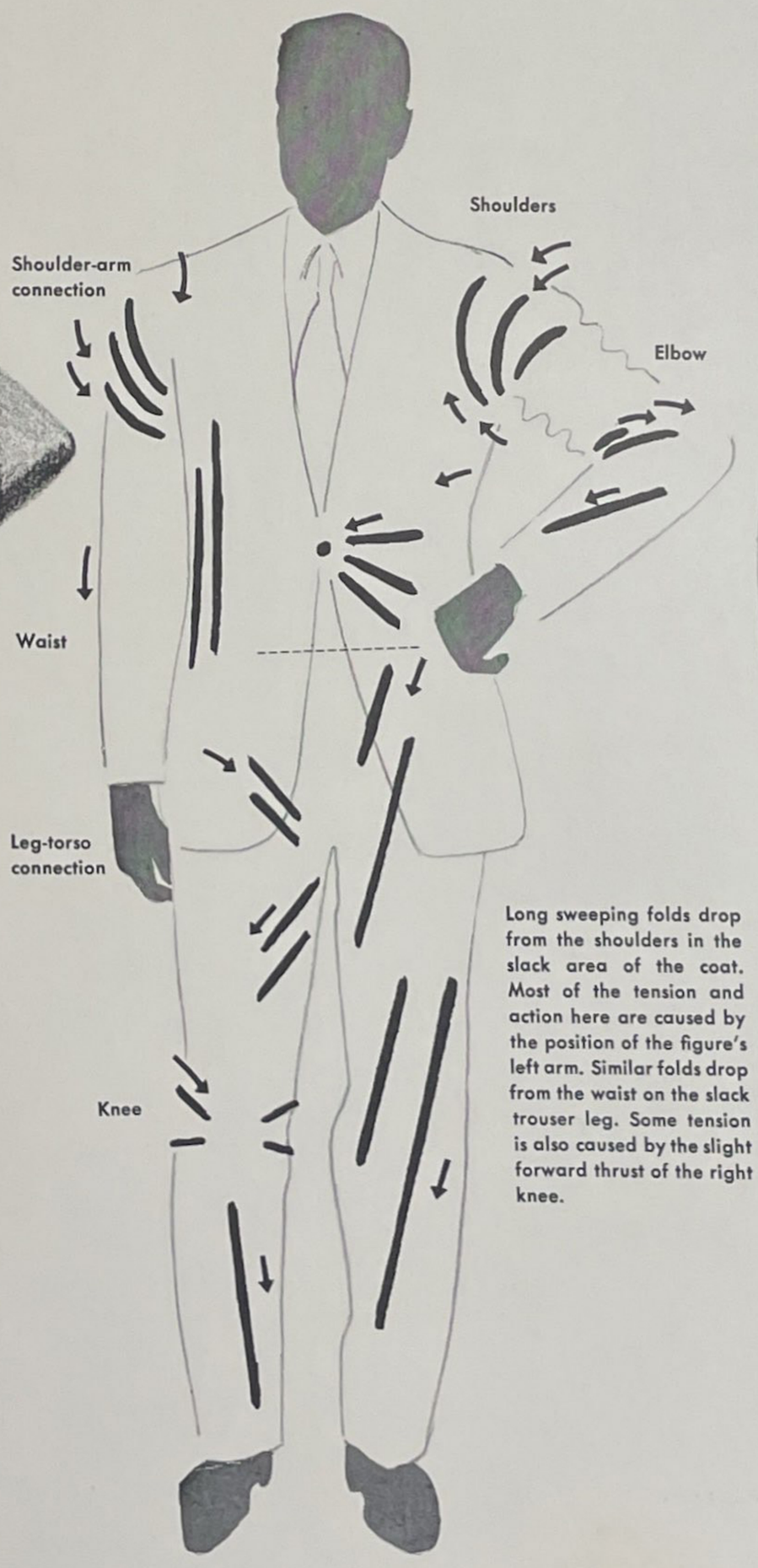
The folds in a draped figure are controlled by three factors: (1) The shape of the underlying form, (2) The action of the figure, (3) The cut of the garment. The folds caused chiefly by the laws of gravity are supported at two places: the shoulders and the waist. These folds are of a long and flowing nature. The folds caused mainly by tension occur at various points and are condensed in character. The main points of these folds are: shoulder-arm connection, elbow, waist, leg-torso connection and the knee. A study of the general character of each group of folds is necessary to drape the figure well. A garment is cut to clothe a figure and at the same time allow for its necessary motion and action. A garment is not just a piece of cloth, it is a cylindrical shape that is confined and has definite limitations of volume. A sleeve, a coat or a skirt is shaped to cover a similar form, allowing excess cloth for free use of the underlying form. When an arm, torso or leg bends or changes direction, the cloth slackens on the opposite side of the tension. This cloth obviously does not change in amount; it just condenses. As it condenses, it creates folds that behave in definite ways in different places. The way they behave is determined by gravity, tension, support and action. Study the captions and arrows on these pages. They cover the causes and directions of garment folds.



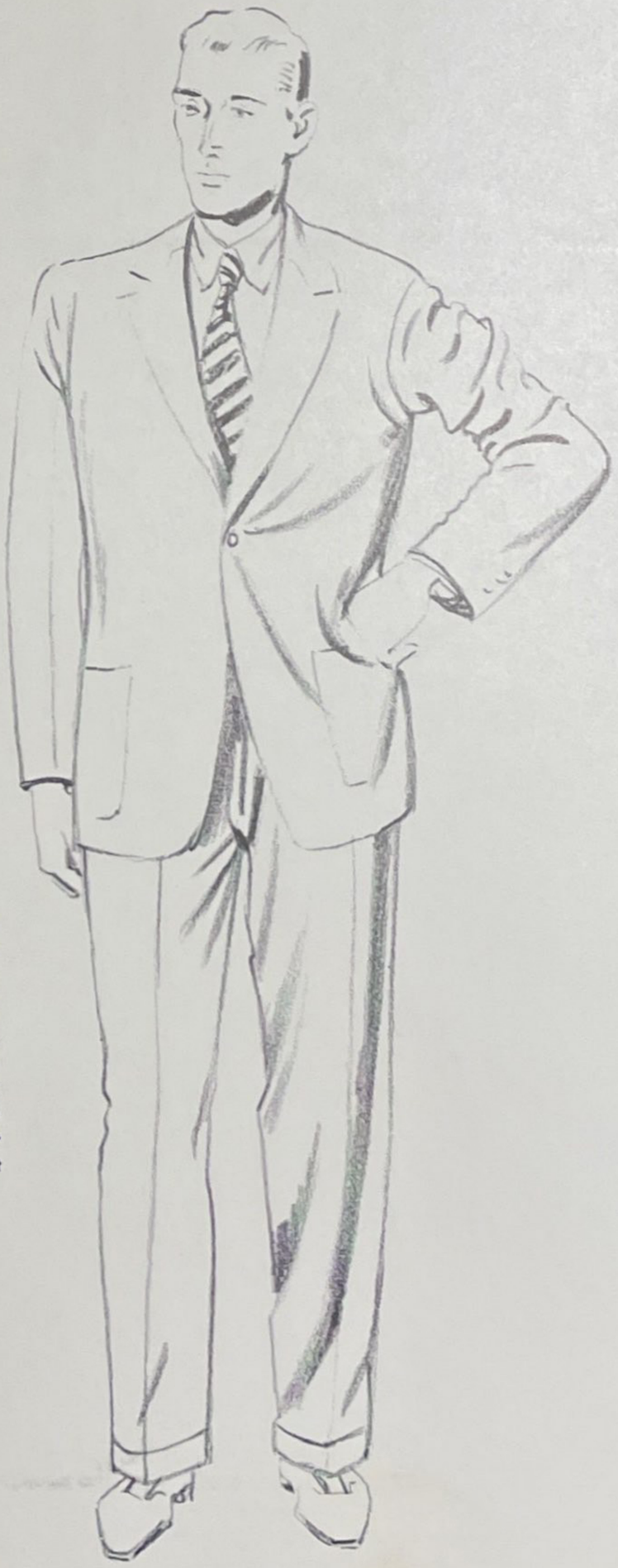
The shape of the form — the action of the figure — the cut of the garment are controlling factors in draping the male figure.



There is a solid human form under every draped figure



Long sweeping folds drop from the shoulders in the slack area of the coat. Most of the tension and action here are caused by the position of the figure's left arm. Similar folds drop from the waist on the slack trouser leg. Some tension is also caused by the slight forward thrust of the right knee.

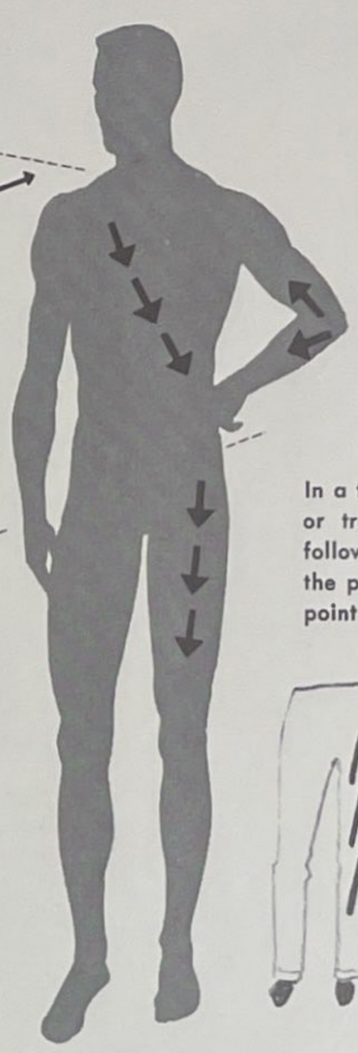


There are two basic points of support in draping the figure – the shoulders and the waist. All folds are controlled by these two points. On a standing, inactive figure the folds, influenced by gravity, drop with only slight irregularities caused by the changing contours of the body. In draping the male figure, the most important of these irregularities occur where the sleeve joins the shoulder and where the trousers meet the crotch.

From the outside edge of the shoulder, and from the protruding edge of the chest, the folds are pulled downward by gravity.

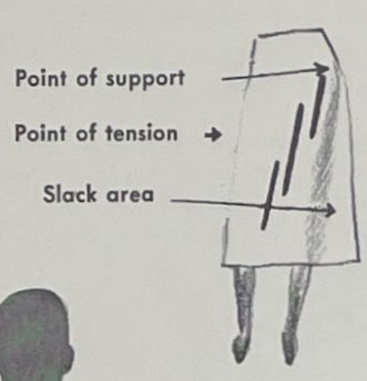
Although the trousers are supported at the waist, the wider point of the body at the hips becomes the actual point from which the folds fall downward.

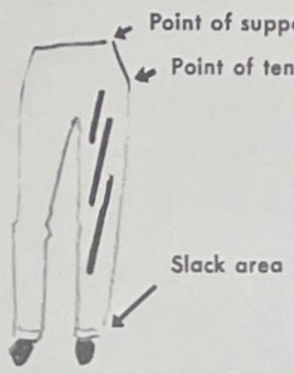
As the shoulders and hips change position by a shift of balance to one leg, the points of support also change position and create a different tension. The dark arrows show the direction of the flow of folds which descend from the highest point of support and strongest points of tension.

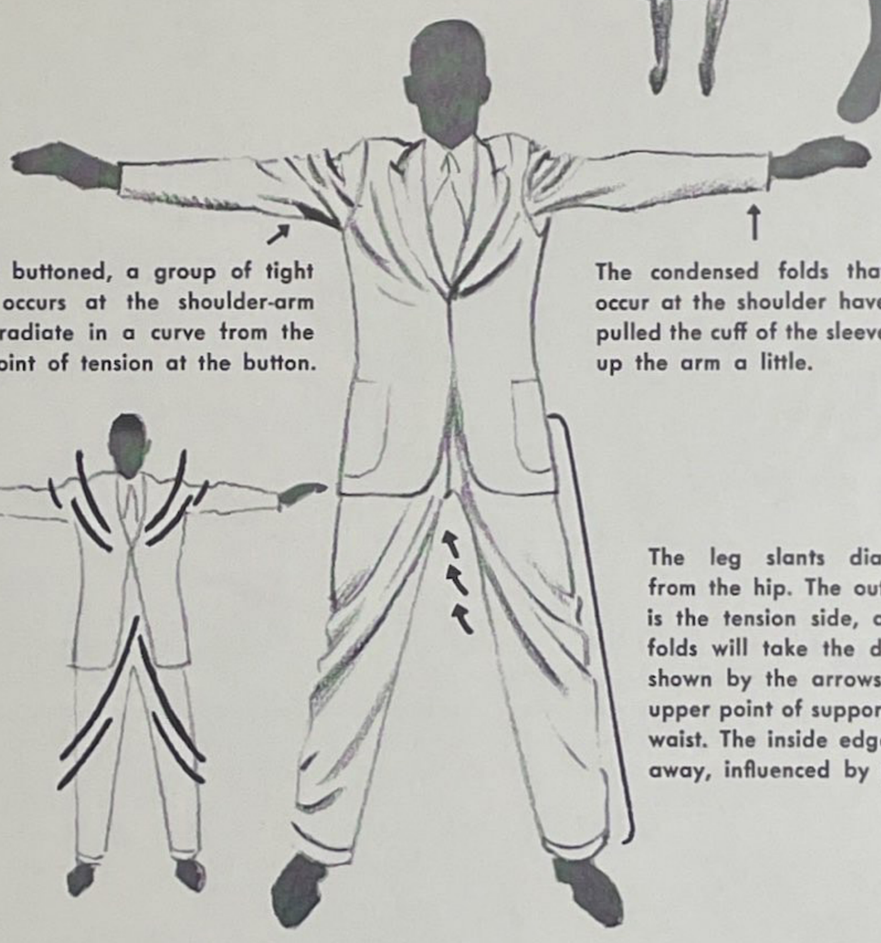


Folds radiate from the protruding edge and follow the direction of the form.

In a tight, enclosed garment, such as a skirt or trouser leg, the folds fall diagonally, following the contour of the form. Below the point of tension, and on the side of the point of support, a slack area occurs.



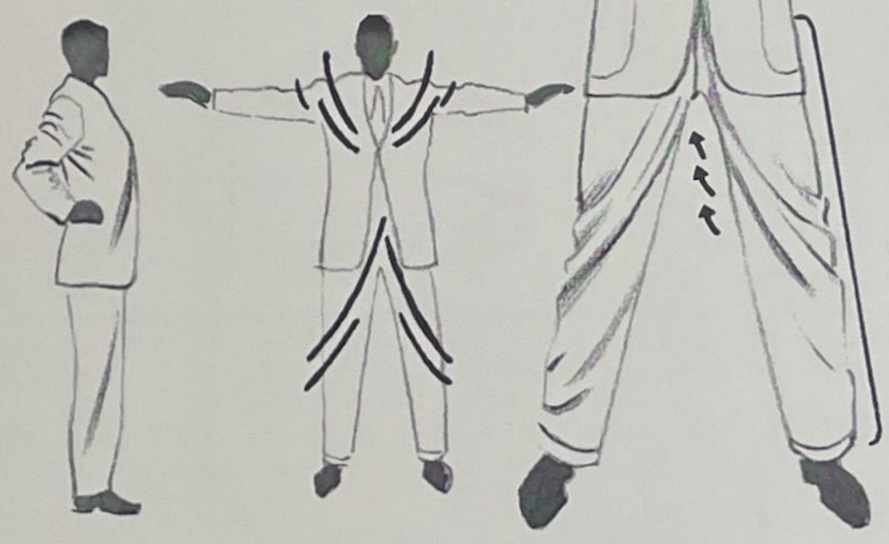




When the coat is buttoned, a group of tight condensed folds occurs at the shoulder-arm connection. They radiate in a curve from the shoulder to the point of tension at the button.

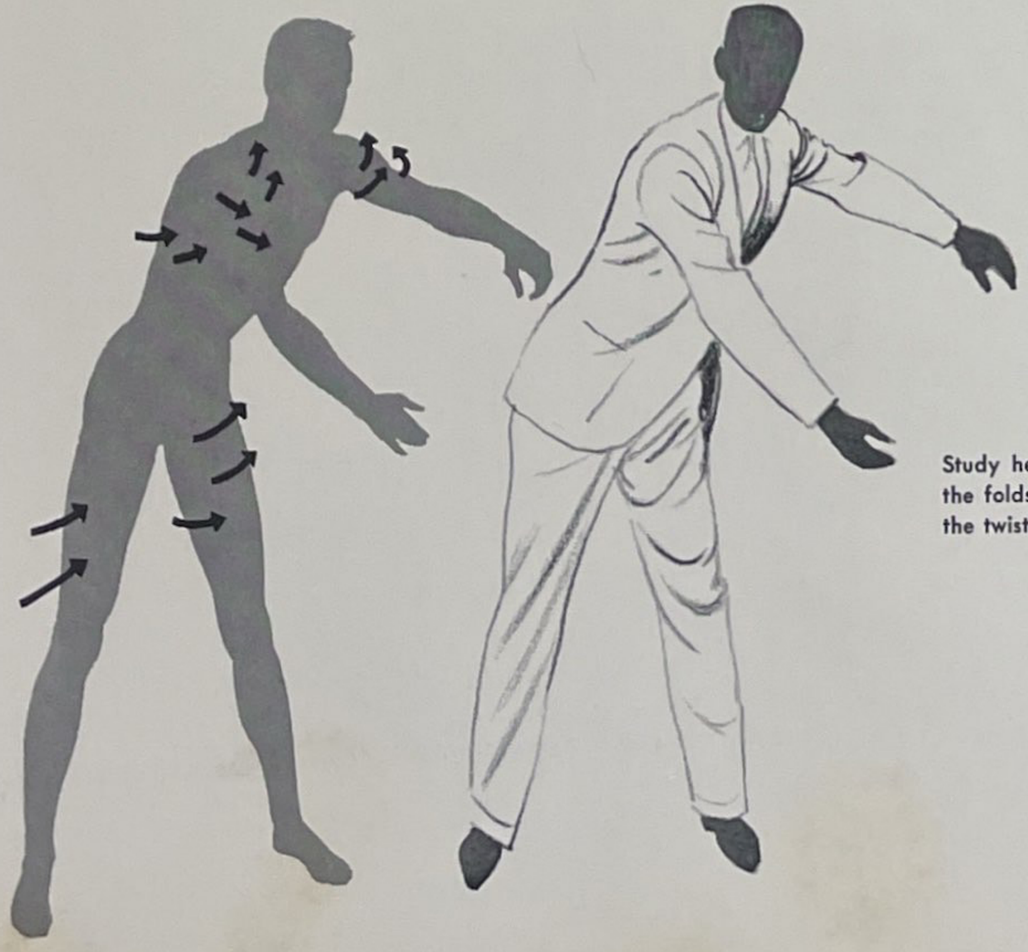
The condensed folds that occur at the shoulder have pulled the cuff of the sleeve up the arm a little.

The farthest protruding edge becomes the point of radiation of the folds, although it may not be the actual point of support.

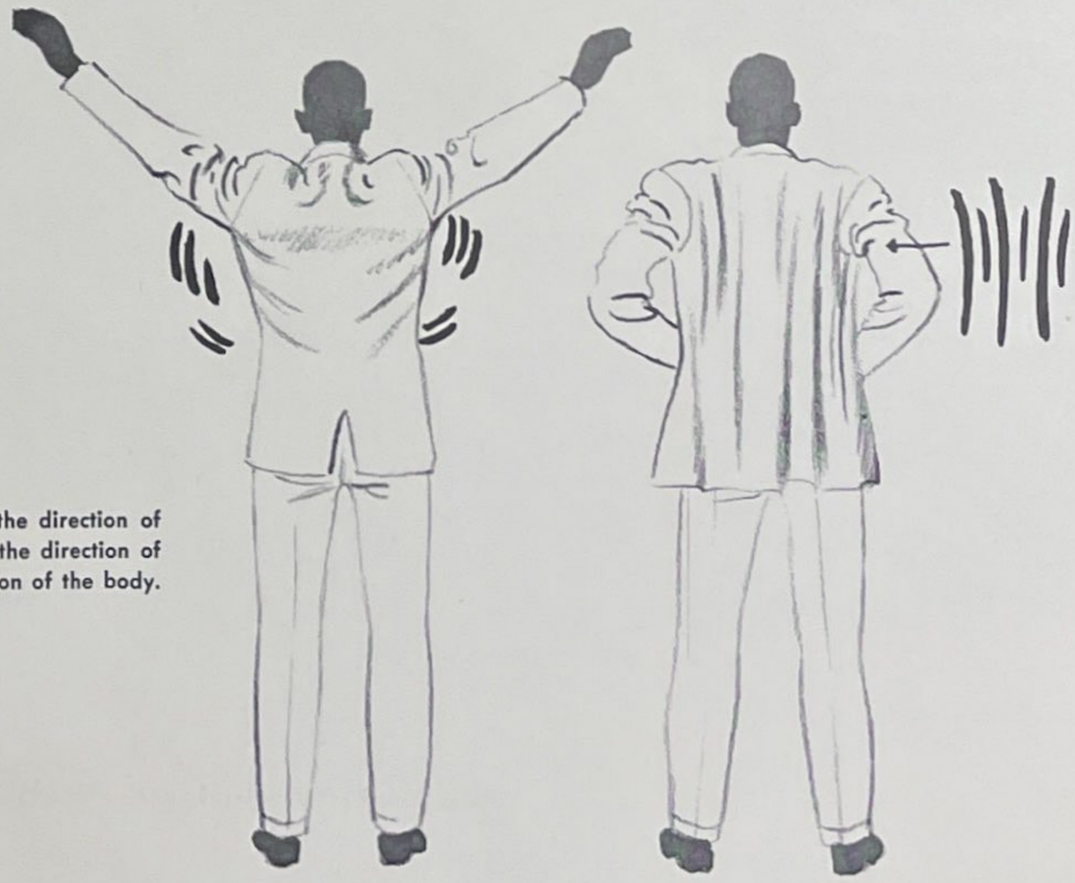


The leg slants diagonally from the hip. The outer side is the tension side, and the folds will take the direction shown by the arrows to the upper point of support at the waist. The inside edge drops away, influenced by gravity.

Folds bunch and condense on the slack side of a form opposite the tension edge.



Study here how the direction of the folds follows the direction of the twist and action of the body.

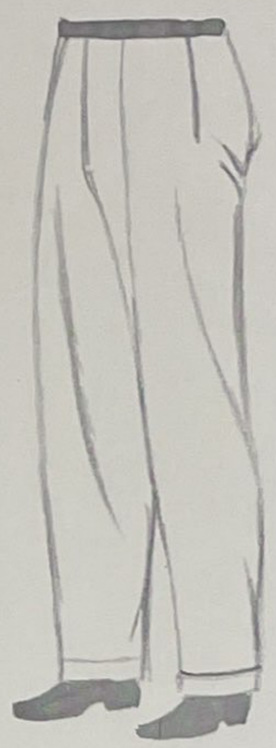


The trouser

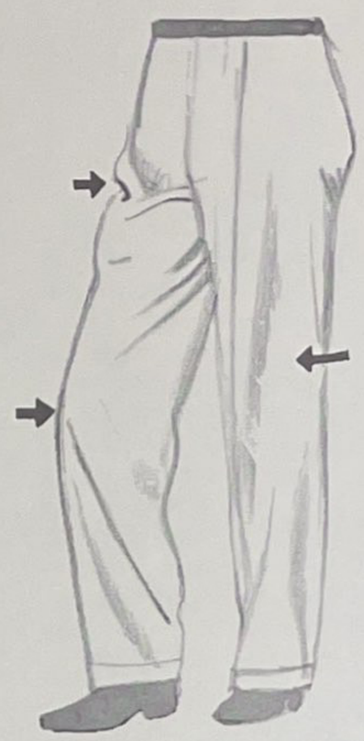
The high place of support is at the waist. The greater width of the hips affects the folds because they become a radiating point of support. You must always think of the form that the trousers are draping. The lower body is cylindrical. Trousers are made to cover the cylinders with sufficient slack to allow freedom of action. The drape of the cloth must go around the form you see at the right, and also obey the laws of gravity, support, and tension.

Trousers are supported at the waist, but "hang" from the hips and buttocks. The pressed seam drops straight down due to gravity. Other slight sweeping folds follow the contour of the limbs.

The leg on the left is straight. The other is bent at the knee. The change of direction creates half-lock folds on the under or slack side of the bent leg. Where the leg on the left joins the torso, half-locks and pipe folds occur.

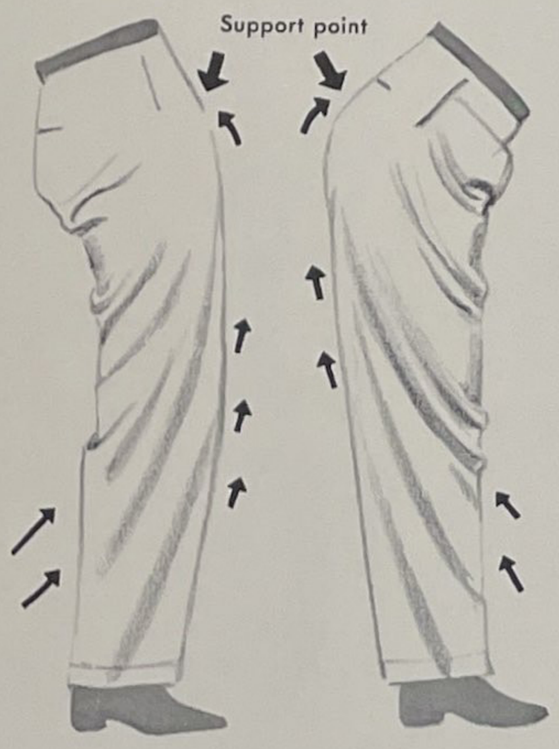


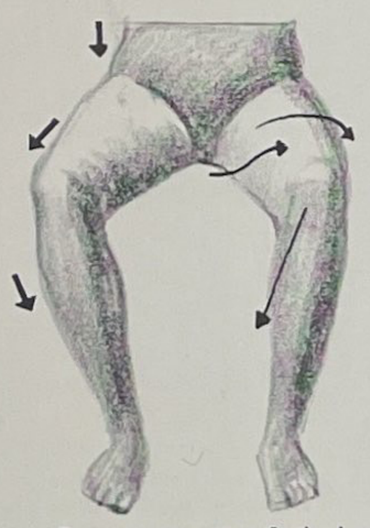
The leg on the right is bent slightly back. This causes a "pull" from the support point at the waist. A long, sweeping pipe fold descends to the calf. The tension causes spiral folds at the buttocks.



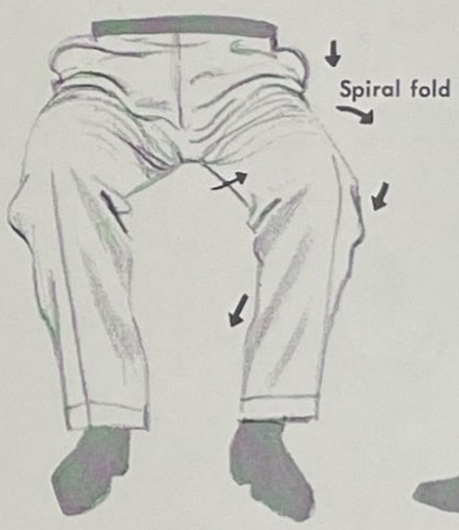
The three arrows point to three important folds or groups of folds. At the left the top ones form as the leg starts forward, the lower ones start at the knee. On the other leg there is a long, sweeping fold.

These diagrams show the folds pulling upward to the point of support. This causes long sweeping pipe and drop folds that reveal the figure action.

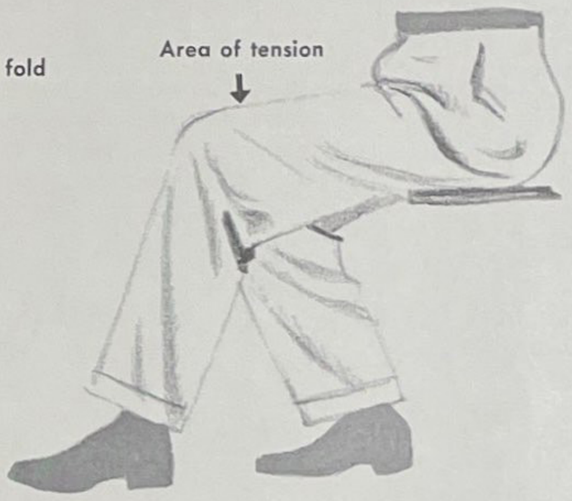




Trousers are cut to fit the leg from the waist down with enough slack cloth to allow for freedom of motion.



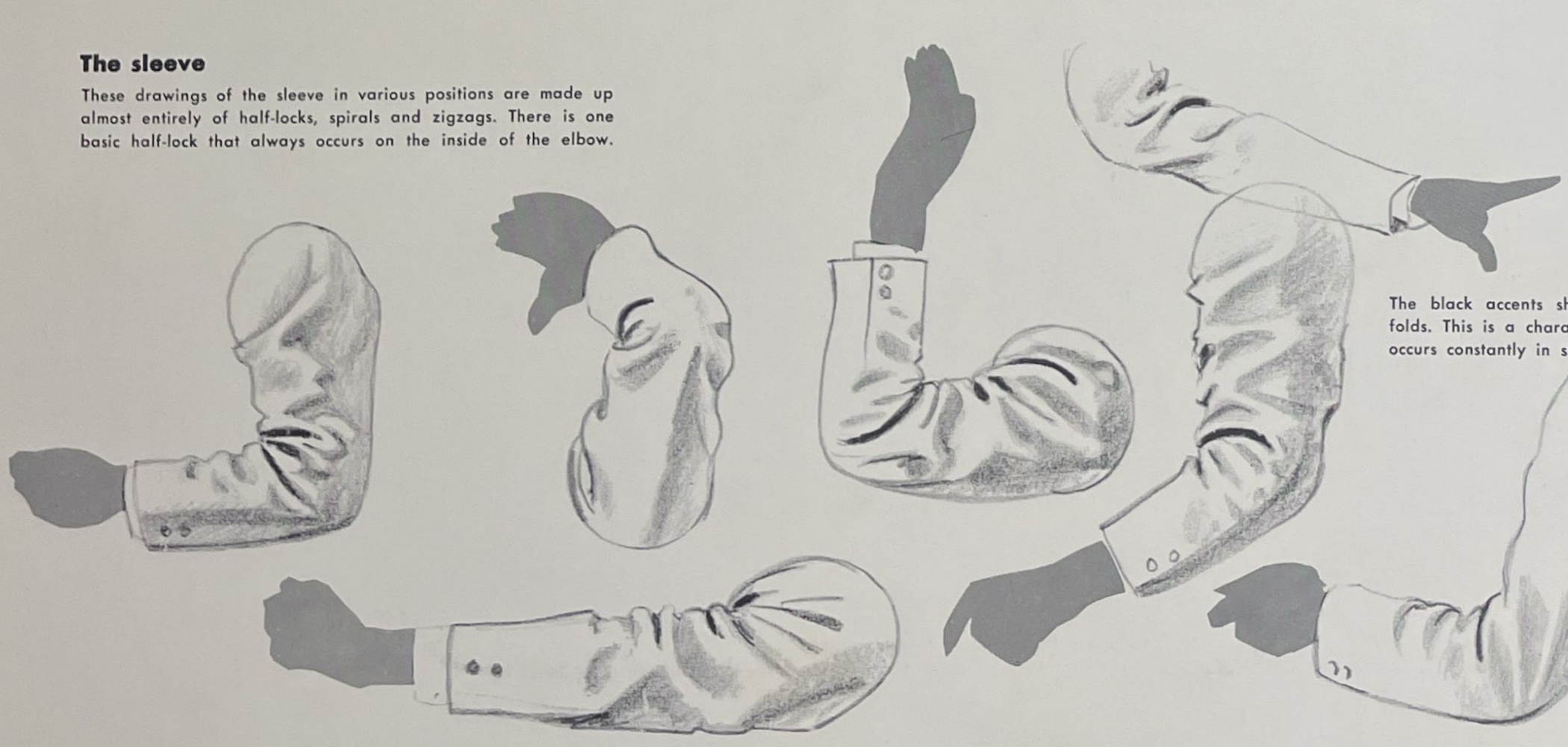
The spiral folds condense at the leg-torso connection and follow the direction and shape of the upper leg. Pipe folds occur from the knee down and sweep back.



The trouser folds are pulled downward from the top side of the leg by gravity and tension. They can only descend as far as the volume of the garment will allow.

The sleeve

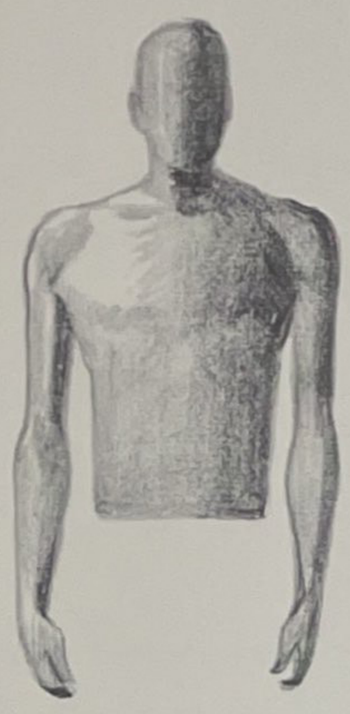
These drawings of the sleeve in various positions are made up almost entirely of half-locks, spirals and zigzags. There is one basic half-lock that always occurs on the inside of the elbow.

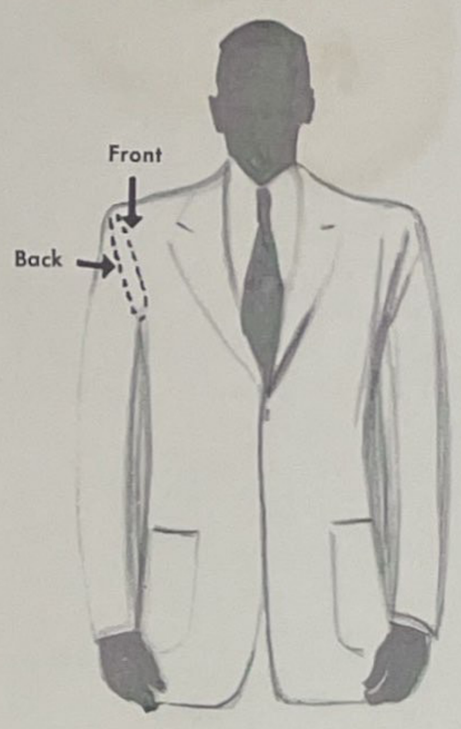


The black accents show the half-lock folds. This is a characteristic fold that occurs constantly in sleeves.

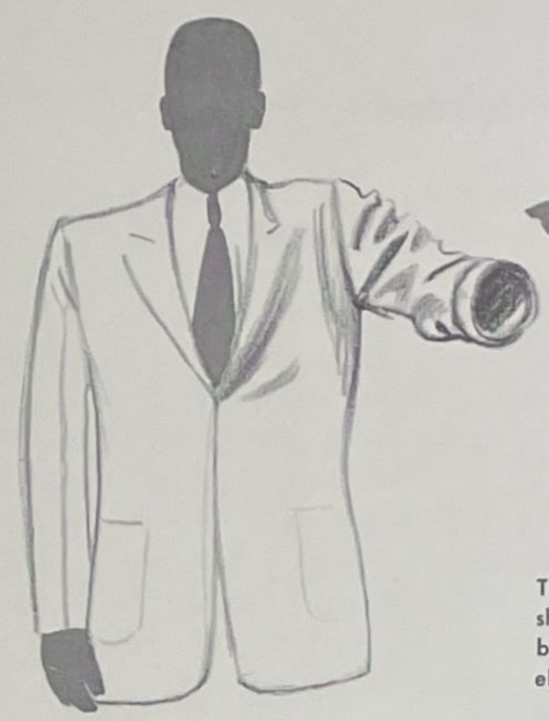
The coat

The coat or jacket is supported from the shoulders. Its range of folds is greater than the trousers, first because of the increased action of the arms, second because it can be buttoned or unbuttoned and third because of the greater variety of garment design. The form and action of the torso and the arms must be understood to draw these folds correctly. The shoulders and arms create most of the folds because of their greater range of motion.

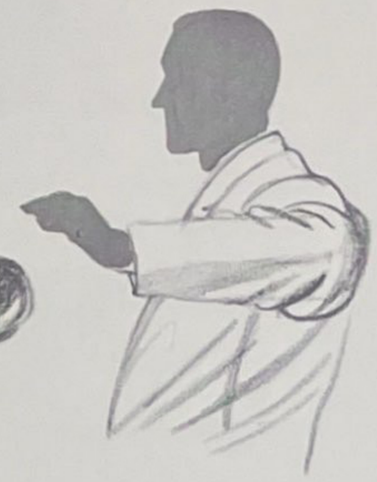




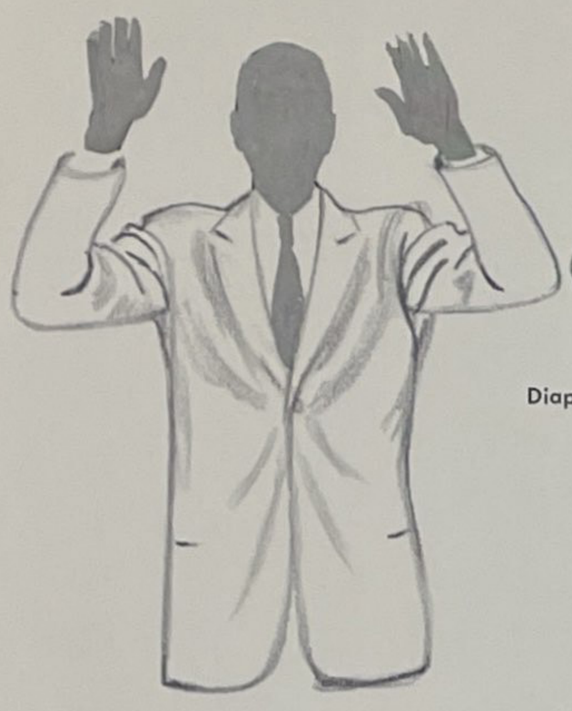
The coat is supported from the shoulders and descends with few folds. The sleeve sets into the body of the coat on an angle where the arm and shoulder join.



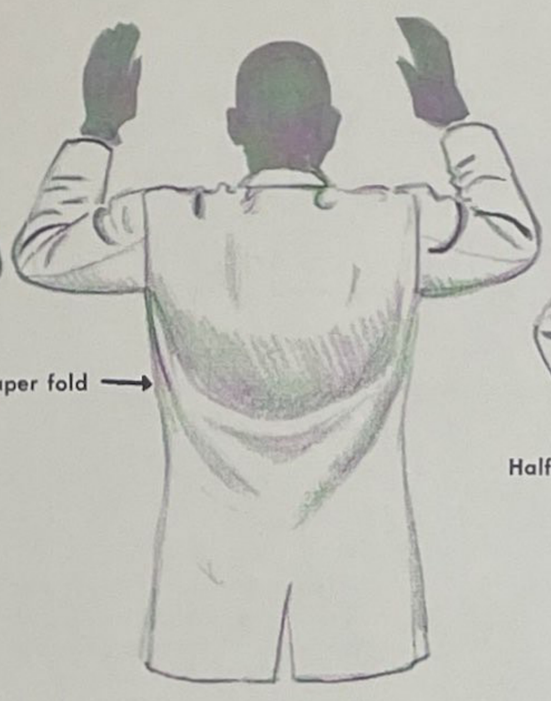
When the arm is lifted, a tension occurs on the cylindrical sleeve that condenses the cloth at the armpit and causes a number of spirals and half-locks to form.



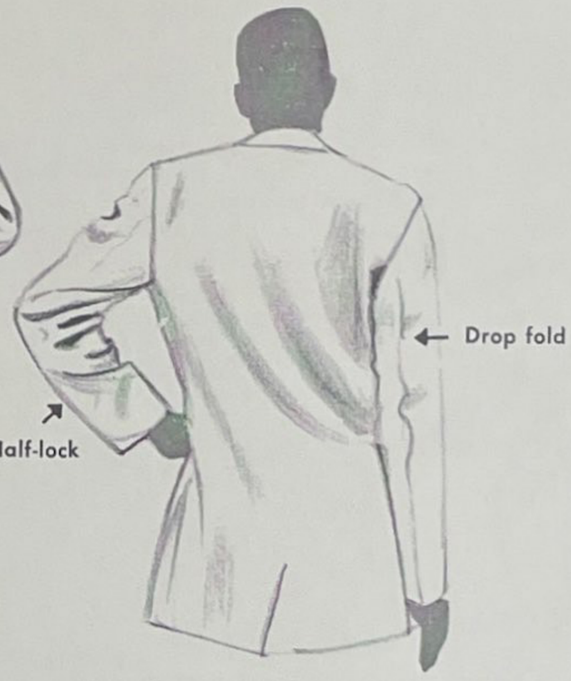
The tension comes from the shoulder-arm connection, the back, the coat button and elbow, causing these folds.



The arms raised in a buttoned coat cause folds to descend from the shoulders to the button and from the button outward toward the pockets. With arms raised, spiral folds radiate around the upper arm from the inside to outside.

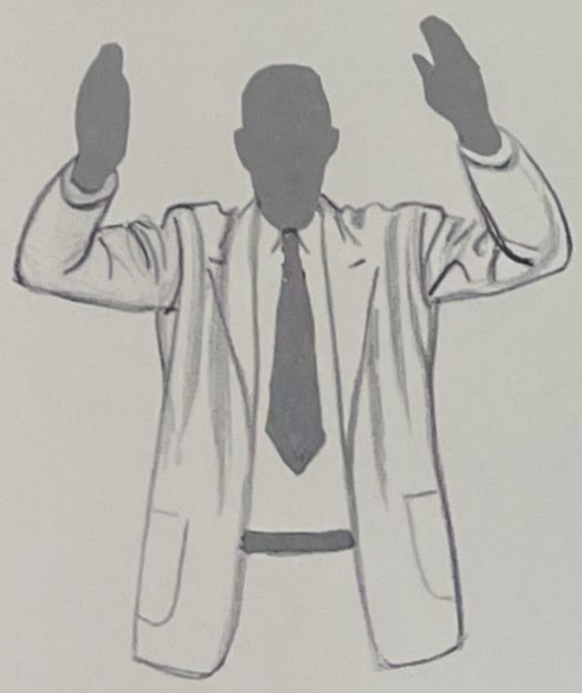


The tightness of the sleeve fitting at the armpit causes the entire coat to be raised when the arms are lifted. This creates a group of diaper folds which start at the two supporting shoulder points and run across the back.

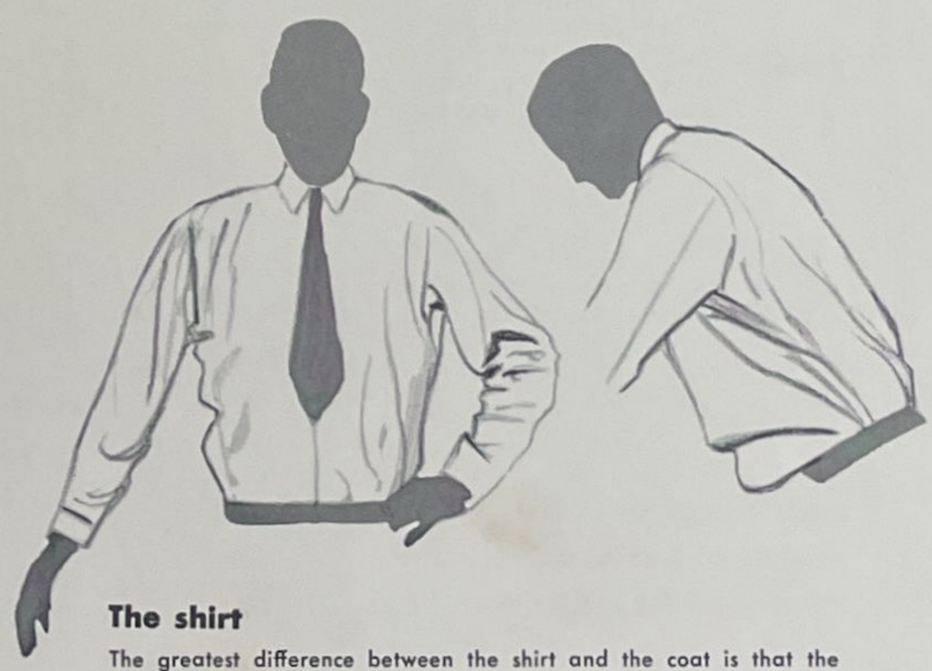


In this view of the back, study the long sweep from the high shoulder, halfway down and across the back. This is a constantly recurring fold when an angular tension is created.

Notice the very large half-lock fold that occurs at the waist button position on the coat. This occurs because the figure is bent sideways and there is a great deal of slack in the garment.

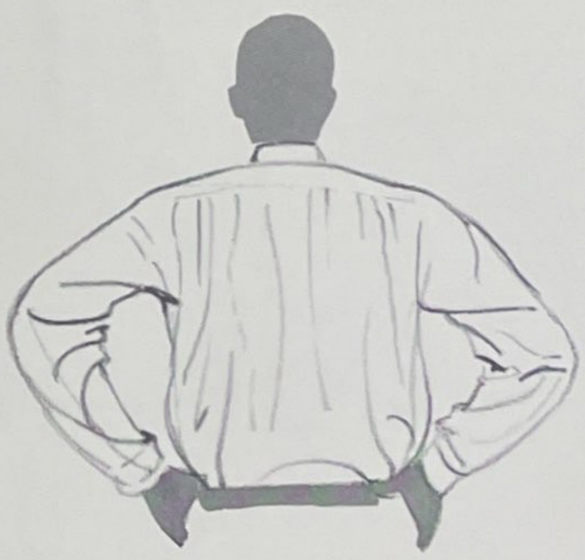


When the coat is not buttoned, the folds taper out toward the bottom in a free sweep from the shoulders.



The shirt

The greatest difference between the shirt and the coat is that the shirt is held rigid at the waist. The shirt is full and contains drop folds and pipe folds of great variety radiating from the waist to the shoulders. They vary in character in relation to the degree of tension present. A twist of the body will sometimes give them a tight spiral character; a relaxed attitude creates diaper folds.

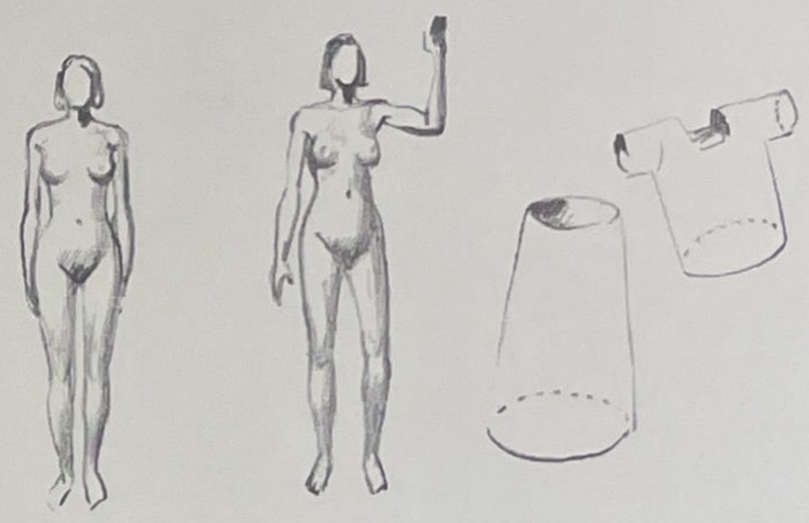


Because shirts have a yoke across the shoulders, folds descend from the yoke to the waist rather than from the top of the shoulders. These are pipe folds and drop folds. The lifting of the arms will change them to diaper folds.

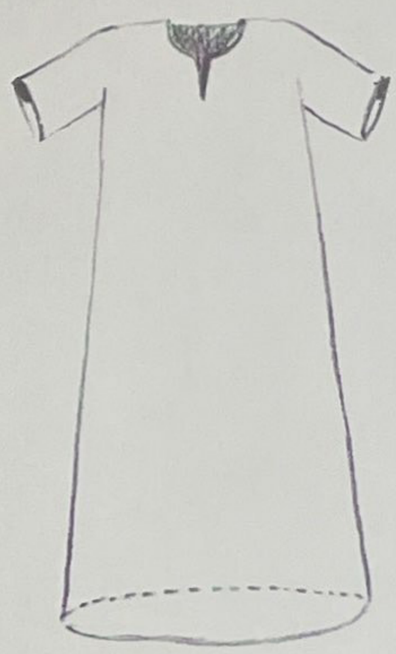
Draping the female figure

Regardless of the wide range of cut and style in women's clothes, there are fundamentals that cannot be changed. A dress is supported from the shoulders, extends out over the bust and descends, due to gravity, in drop and pipe folds to its hem. It may be gathered at the waist and fall from the bust to the waist, to the hips — and then descend. Or it may be a separate blouse and a skirt. The skirt extends out from the waist and falls, due to gravity, from the point of largest circumference at the hips. This is traditionally a female costume, just as a man's costume is a coat, trousers and shirt.

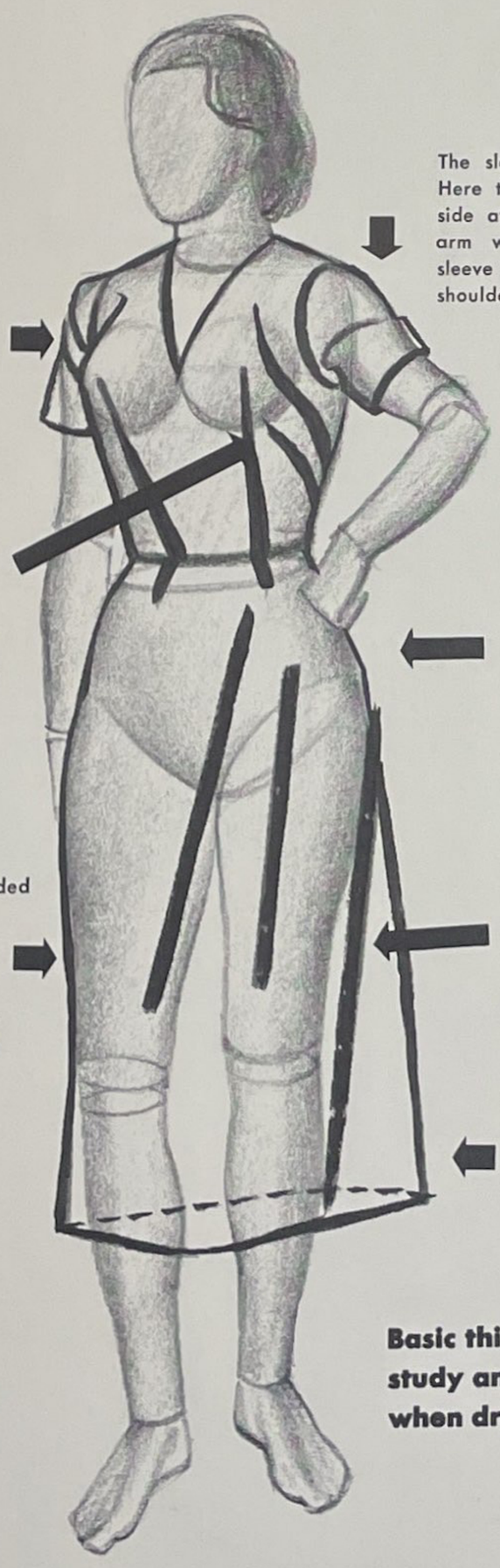
Because of the variety in female clothing you should always sketch in the form of the figure first, and then drape the form. This gives you something to build on. It will be much easier for you to find the different points of tension and support and have the folds correct if you draw the figure first. The variety of volumes of cloth in different cuts of female garments makes this procedure necessary. Always follow the fold "through." That is, draw it completely around from start to finish by drawing its volume, its depth and its contour. When you do this, the fold that is controlled by tension will follow the form. The fold that is controlled by gravity will find the protruding point and descend.



The Form — The Action — The Garment
You must remember these three things to drape the figure correctly.



If this simple garment were placed on a figure, it would hang straight — as shown at the right. Below, we show it gathered at the waist, which has caused the cloth to condense into pipe folds and puts a tension over the bust. Below and to the right, the figure has moved, with legs apart and the figure slightly bent back. In this stance the cloth drops from the bust over the stomach and falls between the legs. Study the outlined figure beneath and also follow the dotted line which shows the contour of the bottom of the skirt.



When the arm is straight down, the folds spiral from the armpit forward, around and up toward the outside point of the shoulder.

The sleeve "goes around" the arm. Here the tension is from the underside at the armpit. If, however, the arm were raised straight up, the sleeve would drop down toward the shoulder in spiral and half-lock folds.

On the female figure, the protruding busts create tension and a radiating point for folds. They radiate to the shoulder, the back and to the waist, or in a loose garment descend.

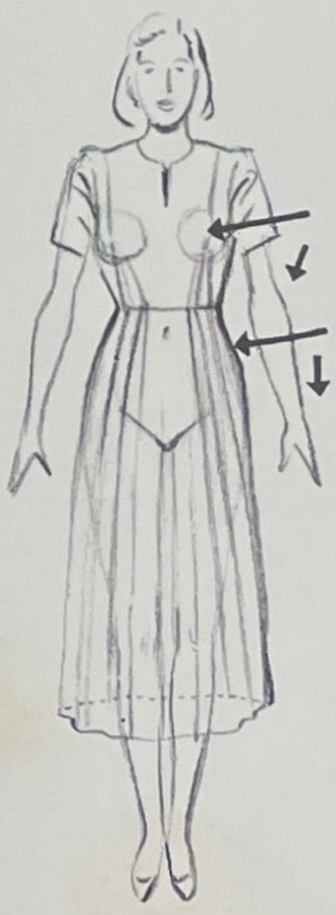
This is the tension and support point for the diagonal, descending folds when this hip is higher and supports the weight. In this position the other leg is extended slightly forward and relaxed.

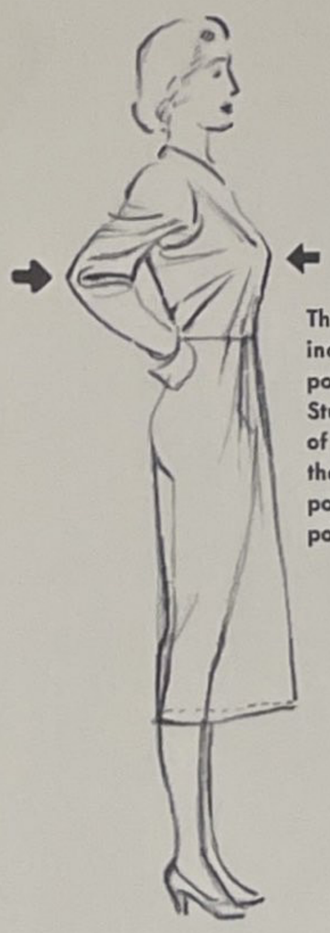
The relaxed leg extended slightly forward becomes a light point of tension and influences the angle of the folds, radiating from the high support point at the hips.

From the hip, large descending folds follow the line of the leg. They cannot fall straight as there is a tension running from the opposite lower leg to this hip.

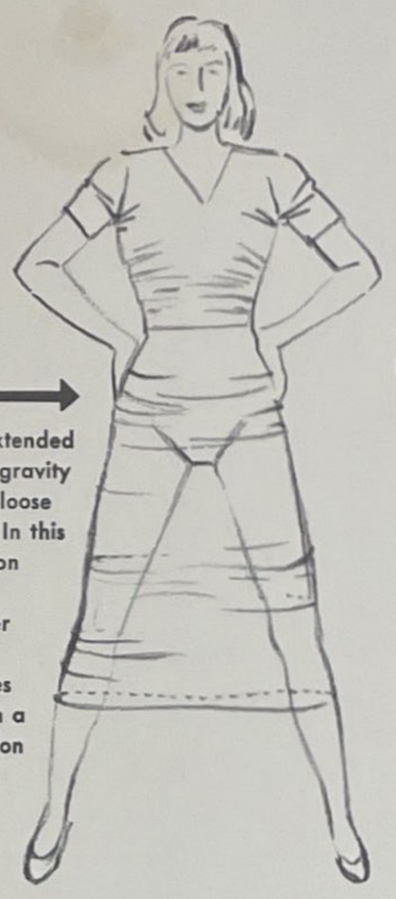
This is the slack area of the skirt that swings down and out from the support point of the raised hip.

Basic things to study and remember when draping a figure.



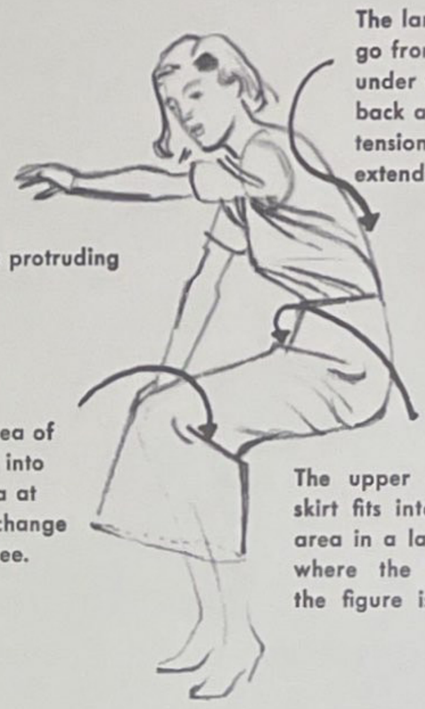


The two arrows indicate the two points of tension. Study the direction of the folds, from their fixed support points to the points of tension.



Even with legs extended the folds fall by gravity as shown on the loose dress at the left. In this posture the tension points on a tight dress are stronger than the support points. This causes the folds to go in a horizontal direction around the form.

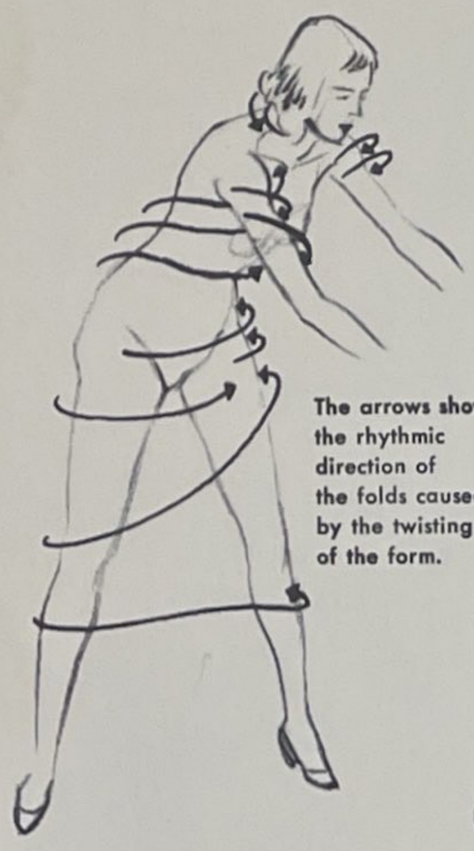
The tension is from protruding busts to the waist.



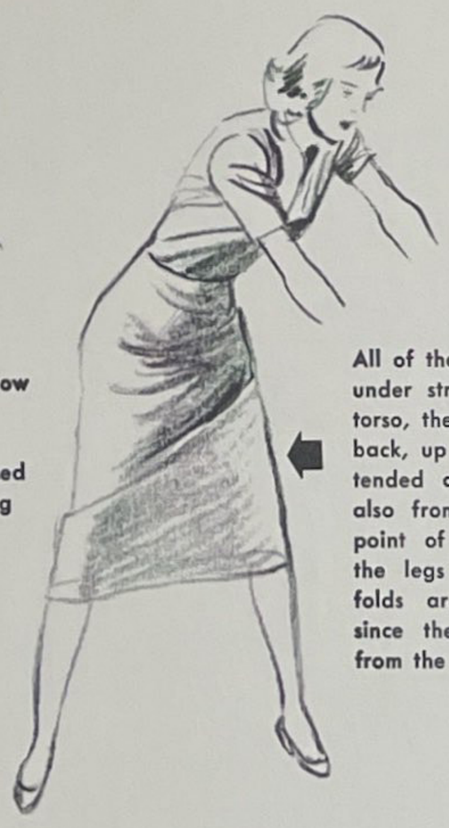
The large tight folds go from the shoulder, under the arm, to the back at the waist. The tension is against the extended arm.

The middle area of the skirt locks into the lower area at the direction change behind the knee.

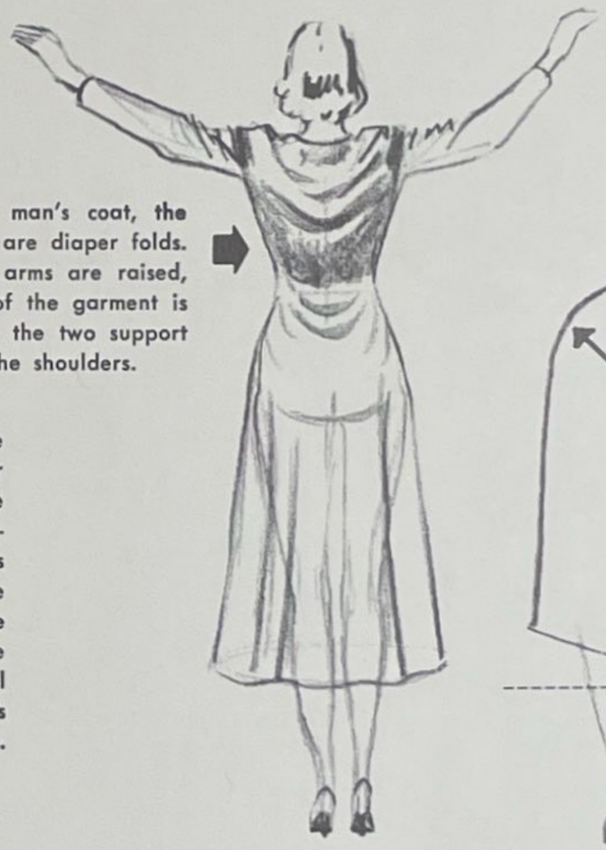
The upper area of the skirt fits into the middle area in a large lock fold where the direction of the figure is changed.



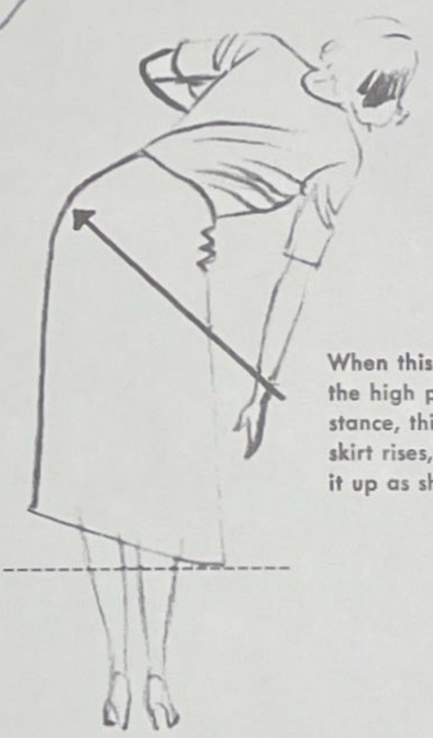
The arrows show the rhythmic direction of the folds caused by the twisting of the form.



All of the tension points are under strain. On the upper torso, the folds go from the back, up and under the extended arms. The strain is also from the back to the point of the bust. Because the legs are extended the folds are more horizontal since the strong tension is from the outside of the legs.



As in the man's coat, the back folds are diaper folds. When the arms are raised, the slack of the garment is created by the two support points at the shoulders.



When this becomes the high point in a stance, this side of the skirt rises, which lifts it up as shown.

The suit

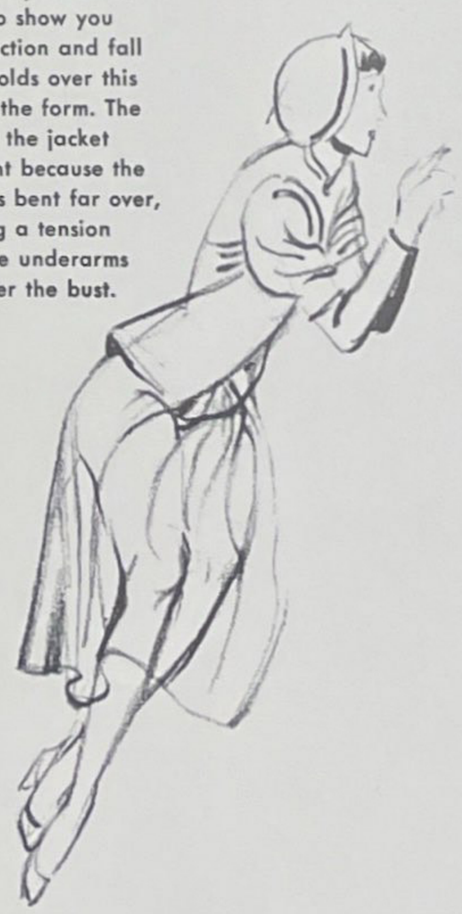
In the jacket, the folds are similar to those in a man's coat, with the exception of those on the bust. In Figure 1, notice that the folds on the upper arms are "soft" folds without much strain, showing a generous amount of cloth from elbow to shoulder. The skirts on all three figures are creating long folds from hip to knee. The weight in each case is on the right leg, with the left knee extended. You will see that this makes a slight difference in the edge of the folds because each skirt is cut slightly different. In Figure 3, the side view shows a long fold coming from the waist, following the leg. This is caused by tension created at the waist as the figure bends slightly back.

1

2

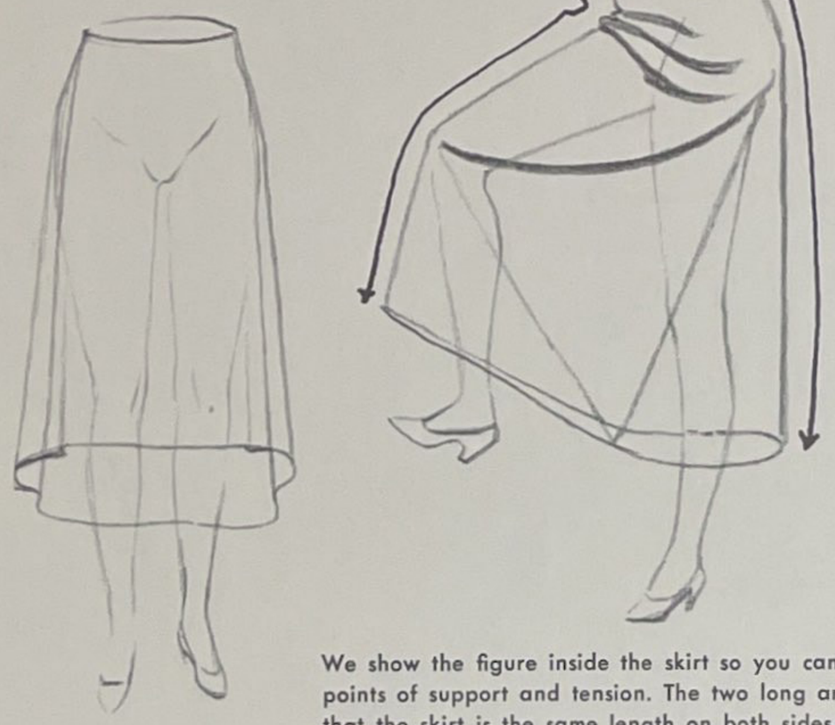
3

We have drawn in the lower part of the figure to show you the direction and fall of the folds over this part of the form. The folds in the jacket are tight because the figure is bent far over, creating a tension from the underarms and over the bust.



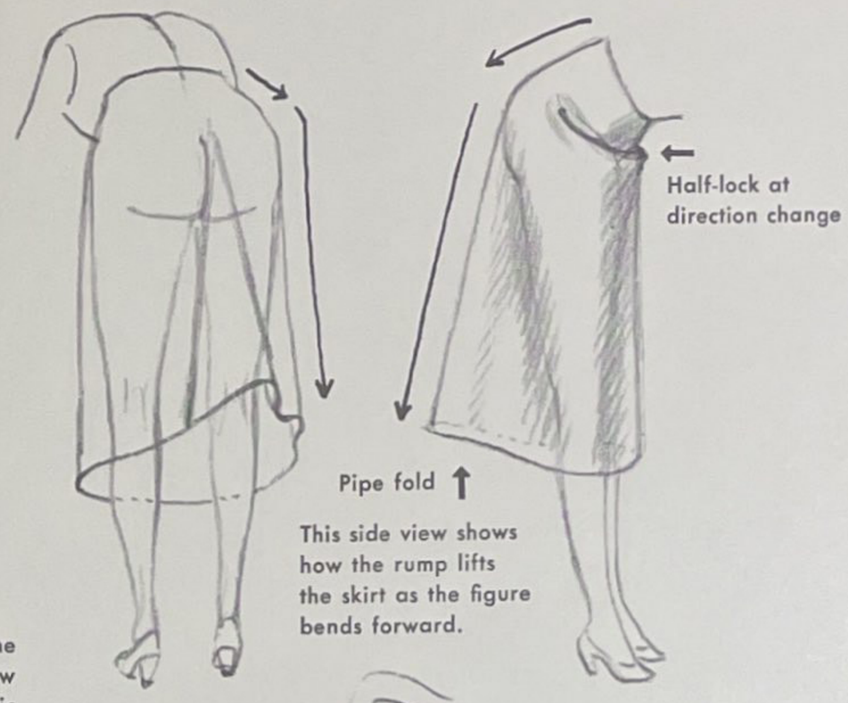
The skirt

Basically, the skirt is a cylindrical piece of cloth, narrower at the waist than at the hem. It must accommodate the lower portion of the figure. If you will study the diagram at the right, you will see how the form looks below the skirt. You must always be conscious of this underlying form, as it governs all the folds of the skirt through the action and stance of the figure.



We show the figure inside the skirt so you can study the points of support and tension. The two long arrows show that the skirt is the same length on both sides. The basic points of tension here are at the knee of the extended leg and the hip. This creates a long, sweeping diaper fold from knee to hip in the slack area of the skirt.

As the figure leans over, the skirt lies flat on the rump for a short distance before it descends. This forward extension of the torso has caused the skirt to rise in the back. Usually one or two large pipe folds drop from the protruding edges at the buttocks.

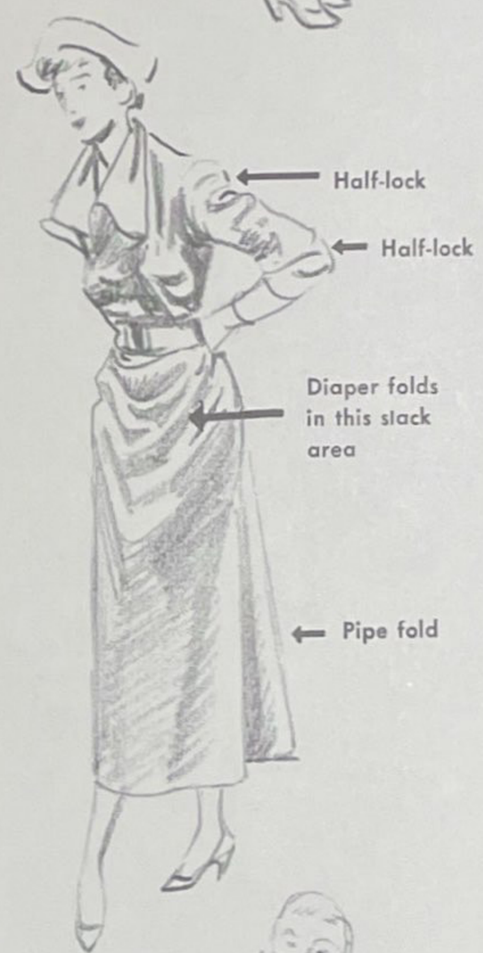


By studying the underlying figure you can see how its form and posture affect the folds of the drapery.

As the hand lifts this full skirt, several large diaper folds occur. The points of support are the hands, the hips and the waist.

The dress

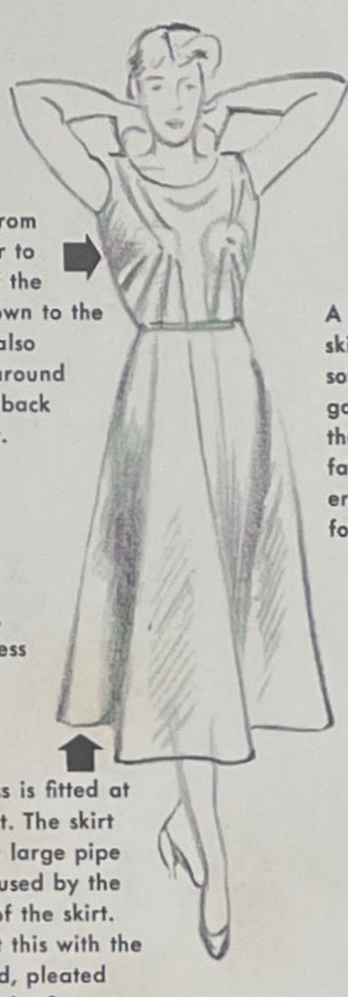
Our chief concern is with the basic pattern of the dress. Most dresses fall into a combination of these basic designs: dresses with tight or loose bodices and full or tight skirts. The types of folds differ, depending on the degree of tension, and this in turn depends on whether the skirt — or the bodice — is tight or loose. Study the differences in folds between the tight and loose garments below.



This shows a fitted dress with a reasonably full skirt. By cutting the bodice to fit the upper torso, points of tension are reduced to a minimum. From the point at the waist the dress fits out over the hips, and the looseness of the skirt from there to the hem causes most of the folds in this type of garment.

Pipe folds from the shoulder to the point of the bust and down to the waist, and also down and around toward the back at the waist.

The tight dress shows the many points of tension quickly because it hugs the form. This causes endless small folds radiating from the tension points.



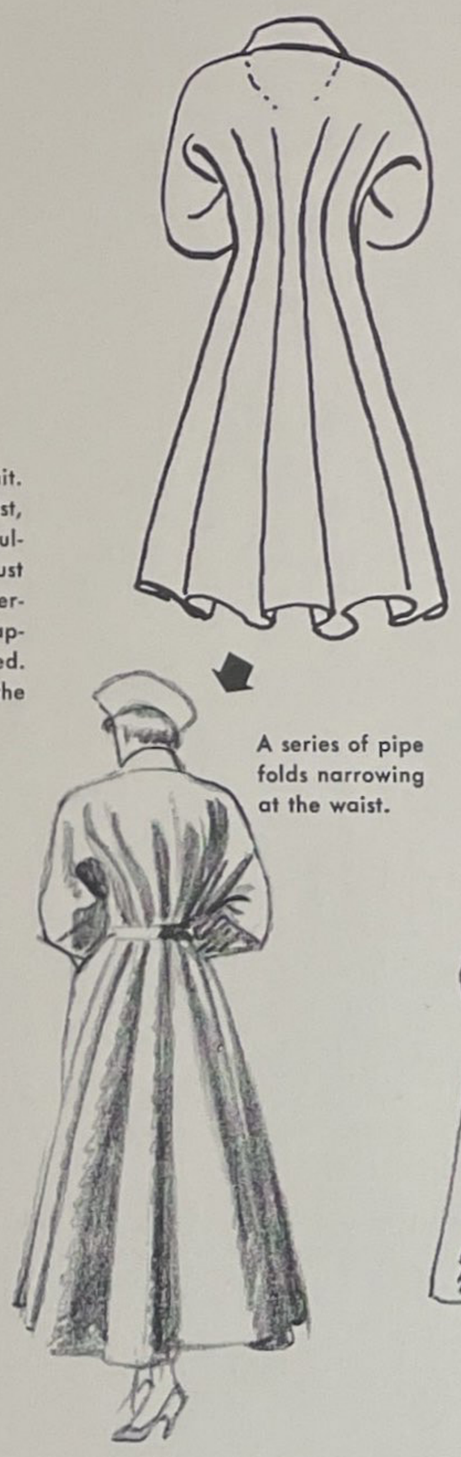
The dress is fitted at the waist. The skirt has four large pipe folds caused by the design of the skirt. Contrast this with the gathered, pleated skirt on the figure at the right.

A very full skirt made of soft material gathered at the waist will fall into numerous pipe folds.

The stance of a figure changes the behavior of the folds. If the hips are on an angle, the high hip will pull that side of the skirt up. If the skirt is tight, diagonal folds will occur from the high hip toward the opposite leg. In a full skirt, as pictured above, there is little tension because of the fullness, and the folds fall directly down.

The coat

Study the coat as an over-all unit. It is either gathered at the waist, hangs directly from the shoulders or is form fitting. You must first capture its basic characteristic. The diagrams show the approach to the coats illustrated. Study them in relation to the drawing below each one.



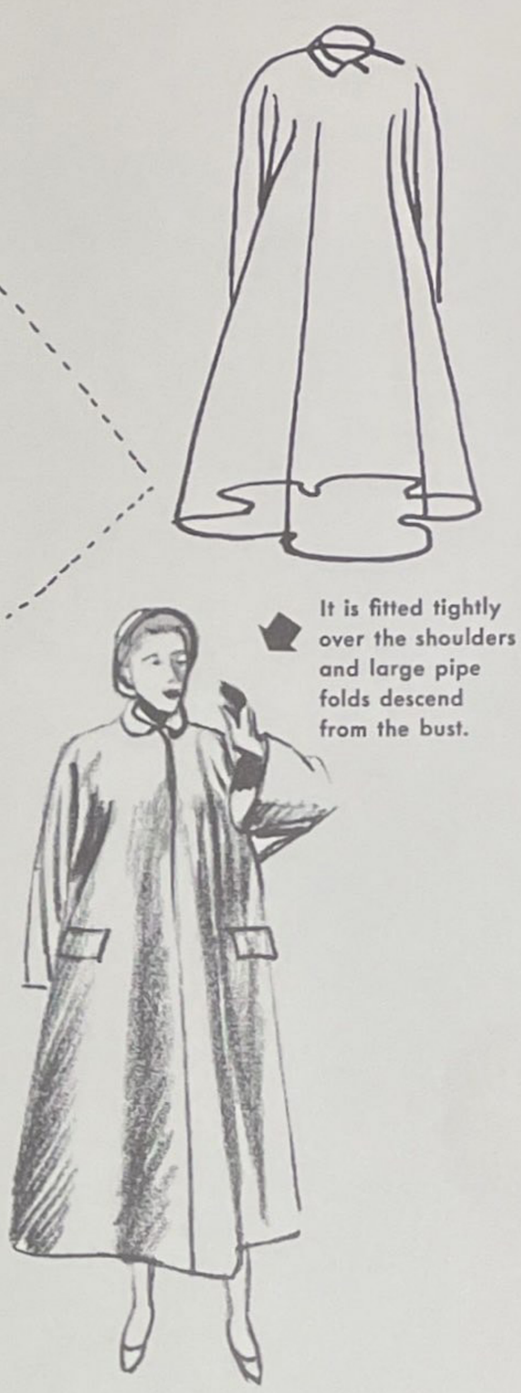
A series of pipe folds narrowing at the waist.

Draw the figure first. Then draw the coat, emphasizing the folds. Start from the shoulder, come in to the waist and out toward the hem. Feel that these are pipe folds, tight at the waist, wider below.

The simplest analysis is just three tall cones.

These folds drop out and down from the top of the shoulders. You should think of a cone or cylinder that is wide at the bottom and narrow at the top. Study the analysis shown in the diagram.

Here the pipe folds fall in a flat manner, caused by the design of the garment. They are still pipe folds, but are flattened. Notice how the collar goes around the neck, returns and is pulled through an opening.



It is fitted tightly over the shoulders and large pipe folds descend from the bust.

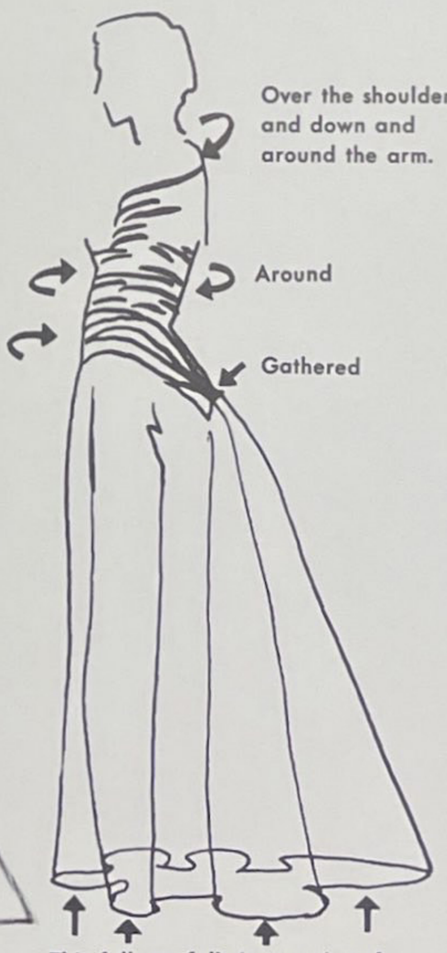
This shows how a certain type of design of garment will cause all of the folds to drop from the neck-shoulder position. The bust, protruding in the front, here governs the direction of the folds as they descend.

The formal gown

You must analyze the basic motive, direction or character of a fold first. We diagram the novel features of each of these gowns. You will see that a very simple form is sometimes the basis for an elaborate set of folds. By understanding this, the final drawing of the gown becomes simple.

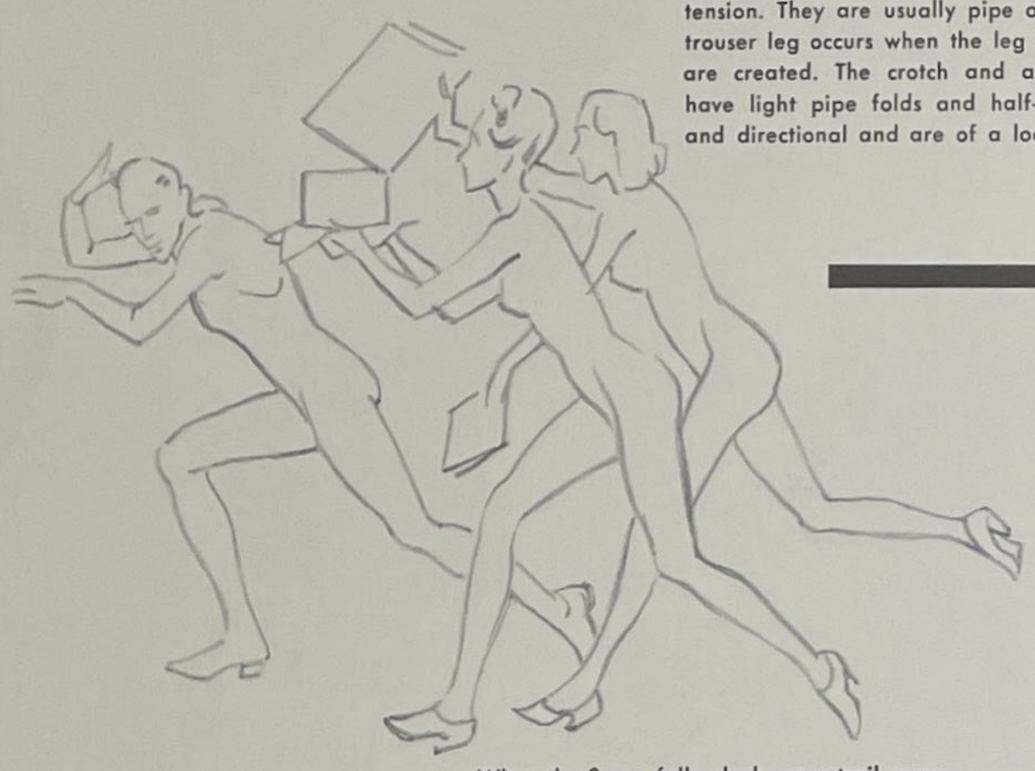
A series of pipe folds, gathered at the top, produces a bell-shaped appearance.

Diaper folds. The cloth dips in and out in a series of peaks and valleys.

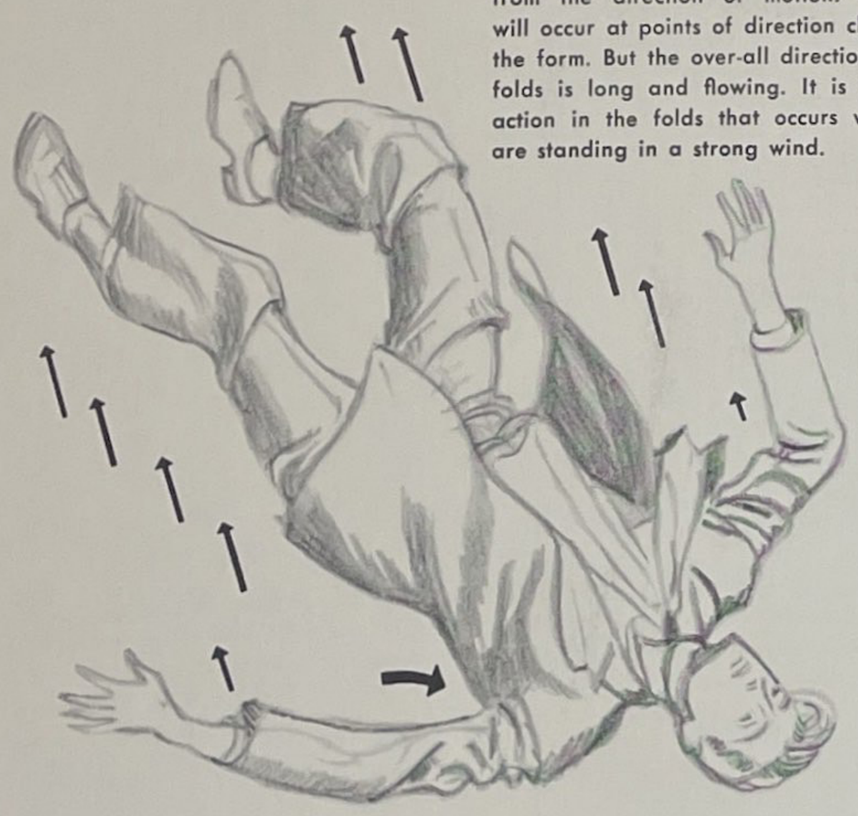


This fullness falls in a series of large pipe folds. Study the curves as we show them here and in the drawing at the left.

When a figure is moving rapidly forward, the front of the body, the arms and the legs become a wall of tension. The direction of all folds is back, down and away from the forward edge of the wall of tension. They are usually pipe or drop folds. Where the slack of a trouser leg occurs when the leg is lifted, diaper folds and half-locks are created. The crotch and arm-shoulder connection continue to have light pipe folds and half-locks. All other folds are rhythmic and directional and are of a loose-flowing nature.



When the figure falls, slack areas trail away from the direction of motion. Half-locks will occur at points of direction changes in the form. But the over-all direction of most folds is long and flowing. It is the same action in the folds that occurs when you are standing in a strong wind.

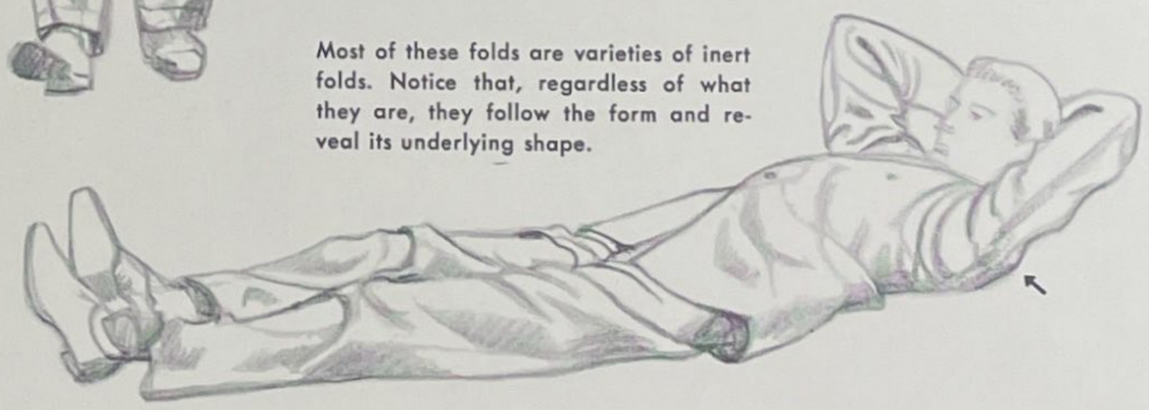


The forward leg will gather soft half-locks and spiral folds as it moves forward. This is caused by the cloth being "thrown" slightly ahead of the leg proper. The back leg will carry a long sweeping pipe fold starting at the front of the waist and flowing in a curve toward the foot. The tension is on the front of the forward leg, and the back of the trailing leg.

A kneeling, reaching figure, as shown, produces a strain that radiates spiral pipe folds from the forearm to the center of the back. The arm-shoulder connection is the key point. The arm folds radiate to it. The torso folds come from the shoulder, go under the arm, around the chest and down to the back.

The reaching arm and the torso bent at the waist do two things. First, the tension around the arm causes radiating spiral folds. Second, the large, half-lock folds occur where the slack of the coat meets the upper leg as the torso bends down. The back has small tight folds caused by the contrasting horizontal tension.

Most of these folds are varieties of inert folds. Notice that, regardless of what they are, they follow the form and reveal its underlying shape.

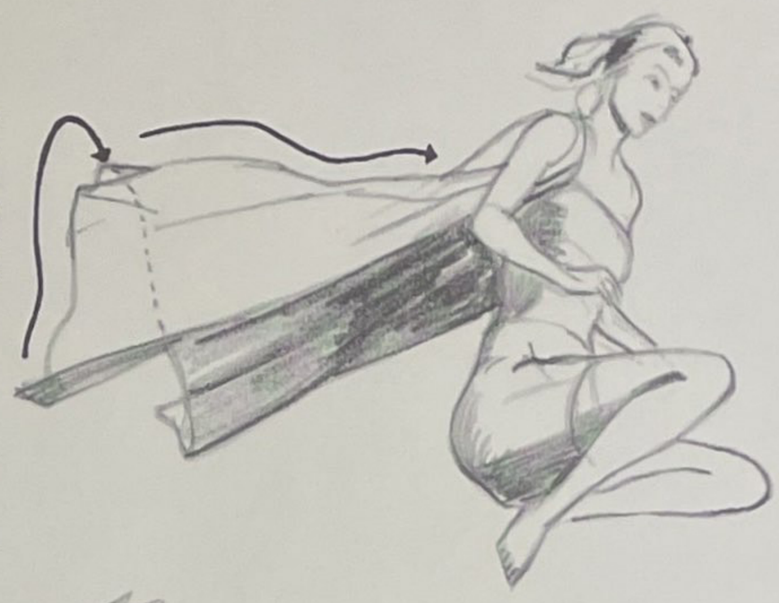


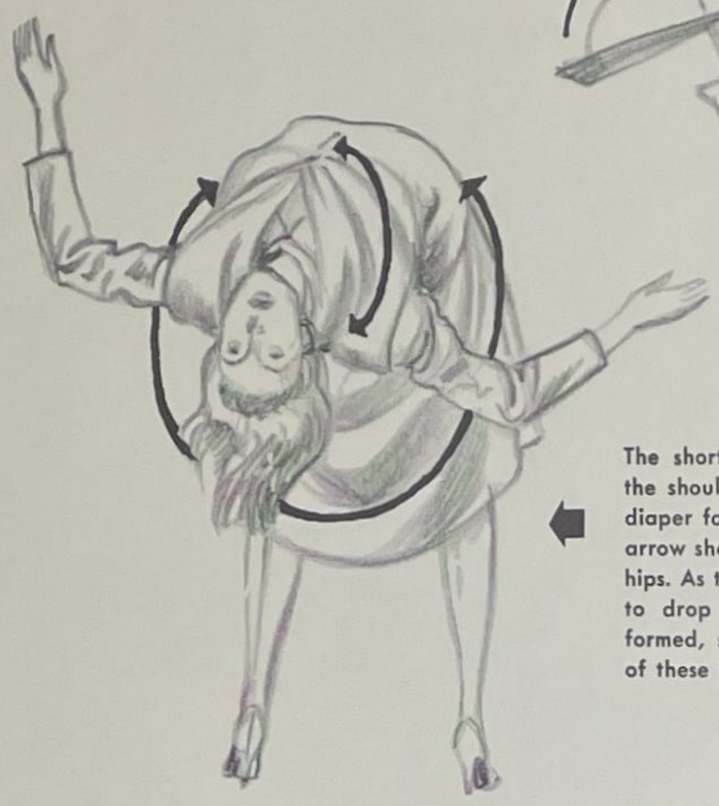
Drapery in motion

The most important thing to remember, and this is a MUST, is that the nude figure has to be drawn first and then draped, or you cannot draw convincing folds on a figure in motion. All of the drawings on this page started with a nude figure. Careful study of the garment is also a must. The shape and fullness of the jacket and the position and connection of the sleeve at the shoulder control most of the upper torso folds. With the trousers, the cut and fullness are the controlling factors, and particular attention should be paid to the leg-torso connection. The trousers behave differently in different actions. Sometimes the slack is thrust upward by certain leg motion – at other times it is under tension. To draw this convincingly requires observation, study and practice.

Women's clothes in motion are impossible to draw without the most careful study of the garment. The variety of styles and designs of the different units, such as the cut of the sleeve or the fullness of the jacket and skirt, makes this study absolutely necessary. The basic points of strain remain, but the particular garment will behave in its own particular manner. The rule to follow is to establish the points of tension and support on the nude figure. Then fit the garment to the figure and estimate the degree of motion so that the slack area falls away from the tension and support points, in keeping with the estimated motion. When you draw the folds radiating from these tension and support points, be sure to maintain the angle and direction of the folds in relation to the intensity of the motion.

This robe is cut narrower at the shoulders than at the hem. As it moves horizontally in the wind, it takes a wide sweeping curve at the hem. Its tension point at the arm-shoulder connection controls the entire shape of the garment as it recedes.





The short arrow shows the tension from the shoulder to the button, causing small diaper folds on the upper chest. The long arrow shows the two support points at the hips. As the figure bends, causing the skirt to drop down, large diaper folds are formed, sweeping from one to the other of these two points.

A loose cut coat, such as this, falls back and away from the direction of the action in several large pipe folds. The control of the folds is from the top of the shoulders, forward, then down and under the armpits, as shown by the arrows.

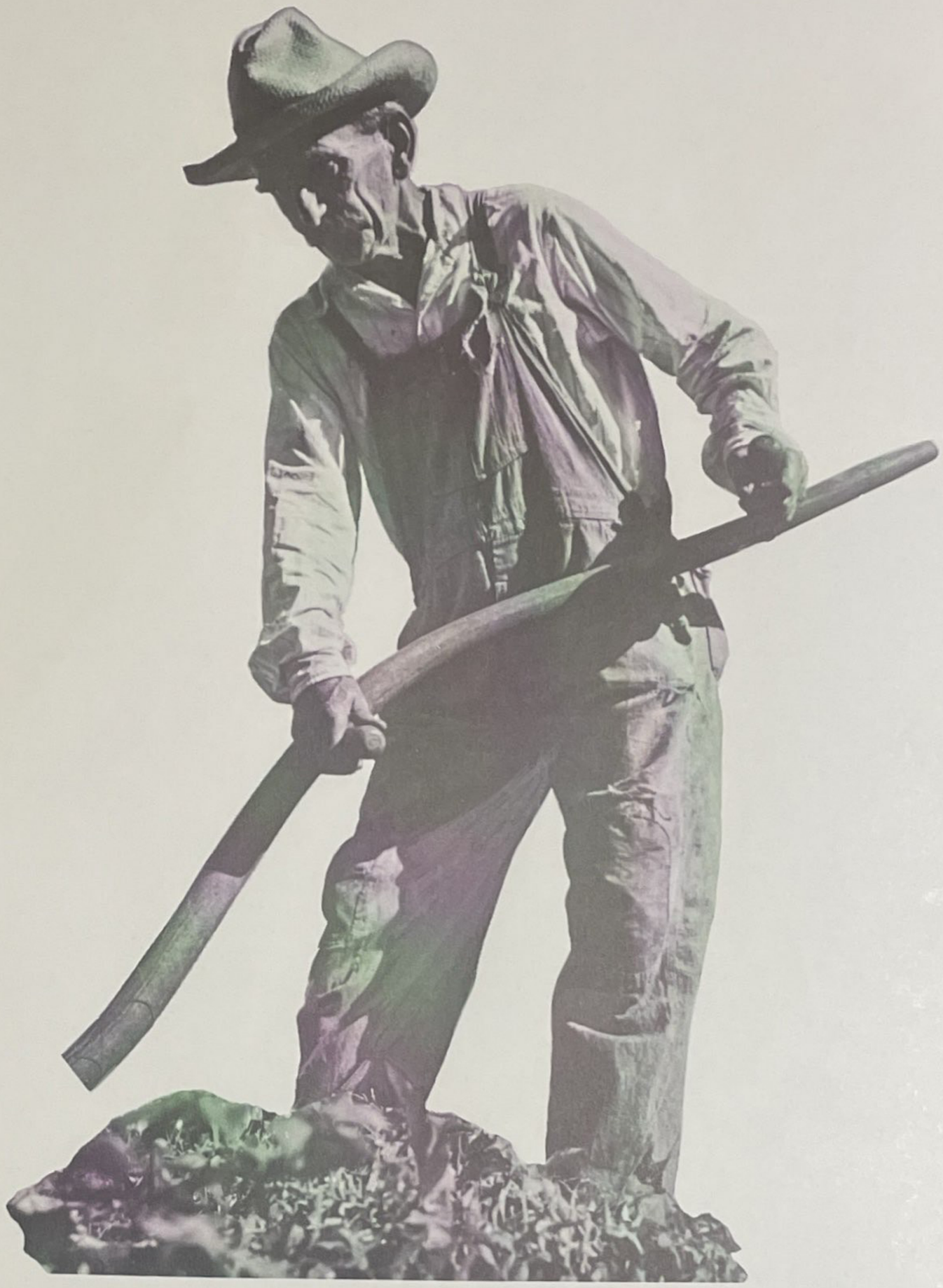
The major folds in this dress are caused by the style of the garment, rather than by the action of the figure. Tight folds occur at the gathering of the cloth on one hip. Due to the influence of gravity, the long pipe folds descend from the other hip where there is a surplus of cloth that is not under tension.

A side view of the skirt shows how the skirt "works up" as the leg thrusts forward. A group of folds occur in the slack area. They are caused by the cloth moving up and descending diagonally back and away from the tension. They follow the contour of the leg. A group of zigzag folds occur opposite the crooked arrow in the slack area near the leg-torso connection.

This illustrates how pipe folds follow the form of the figure. There are some slack cloth here and many folds, but the form of the figure predominates.

The inactive skirt is inert. Because of its fullness, part of the form of the legs is hidden. This fullness has caused a few diaper folds from tension at the hips.

Wool: The soft wool of this suit follows around the body in soft, curving folds. Because the fabric is fairly thick and heavy, the folds and wrinkles lack the sharp definition and angularity we observe in thinner materials. Compare, for example, the cotton shirt on the man above.



Old denim and cotton: These denim overalls have become threadbare and baggy with wear. The bagginess is especially noticeable in the outline of the legs. In the cotton shirt there are many small, rather angular folds and wrinkles.

The material affects the folds

Every piece of drapery, regardless of the material it is made of, will form one or more of the seven types of folds we described earlier.

However, the material itself will create important differences in the size and type of the fold. You might say the details of each of the folds vary with the type of material. For example, heavy materials like coarse canvas, wool, or leather make fewer and simpler folds than we would find in a lighter material like satin or light cotton. The structure of the folds – their crispness and angularity or softness or smoothness – can be seen in considerable variety on these pages.

Before drawing or painting a piece of material, study the character of the cloth itself. You will find specific qualities that can be clearly shown in a drawing or painting and will make the material seem more like cotton, wool, satin, etc., or whatever it is that you are painting. This is particularly important if your picture depends on clear distinctions between different types of material or characterizing your subjects by the material in their garments.

Starched cotton broadcloth: The starched cotton broadcloth of this girl's dress contrasts sharply with the clothes of the farmer on the opposite page. The dress, which has been carefully pressed, falls into pleats that are crisp and angular.

New denim, thick cotton: Like the farmer's overalls, this boy's trousers are denim, but the material is newer and stiffer. Although the sweatshirt is made of cotton, it is thick and heavy and so creates soft, curving folds like wool rather than angular ones like thinner cottons.

Heavy wool: A heavy material like the wool of this overcoat resists wrinkling. Where it does wrinkle (as at the bottom), the material forms large, heavy folds. Compare the folds at the bottom of the coat with those in the trouser leg. The lighter trousers form similar but much smaller shapes.

Photographs courtesy of Ewing Galloway

Here is a good example of how closely sculpture and painting parallel each other in using drapery to reveal form. The head of the Virgin at the left — a detail from Michelangelo's statue, Pietà, below — is carved from marble, but the drapery is as sensitively arranged as actual cloth over the form. The painting at the right, by Campin, shows just as much form in the careful construction of the kerchief.

Drawn or sculptured, drapery reveals structure and form

It is interesting to compare drawings and paintings of drapery with drapery in sculpture. In many cases not only are the subjects much the same – we can see quite clearly that the artist who draws with pencil on paper thinks in much the same way as the artist who carves out of rock with hammer and chisel. Both are chiefly concerned with form – one to create the illusion of form on a flat surface, the other actually to carve out this form.

In Leonardo da Vinci's study of drapery to the right and the piece of sculpture above you can see a remarkable similarity. Pencil follows over the forms it draws and constructs planes, some of which are in light and some of which are in shadow. Shapes and folds are modeled with values to suggest a convincing image of solid, three-dimensional form.